THE PHYSIOLOGIST

How to Respond to "Inappropriate Invitations"

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Francis L. Belloni

In many ways, as a graduate student or postdoctoral fellow, you may find yourself in the most exciting stage of your career. Your growth curve is steep; every day you are learning more and developing your skill and confidence as a scientist. Senior scientists whose work you admire, both within your own institution and from outside, increasingly recognize your work and begin to treat you as a junior colleague. This is heady stuff. But you are not yet a full-fledged member of the profession, and, in fact, your advancement–

completing your degree, attaining that critical postdoc or that first "real" job, or landing that initial research grant–is quite dependent on gaining and maintaining the support of those nominally responsible for your training, such as your mentor, dissertation advisor, committee members, postdoctoral supervisor, and so on.

You definitely want to keep those folks happy with your work and enthusiasm. But what if one of them asks you do something quite unrelated to your research or studies? Something that, for one reason or another, is an "inappropriate" request. How do you handle such situations? That is, how do you deny the request without invoking the ill favor of the requestor?

Some Scenarios

"Inappropriate" is a flexible term and is open to a range of interpretations and may be applied to many different situations. For this article, we are considering only situations in which there is a "power imbalance," i.e., a request made of a student or postdoc by a mentor, advisor, faculty member, supervisor, or someone else with authority over the trainee. Futhermore, we are considering only "social" requests that are not primarily related to the trainee's¹ job duties.² Many of the scenarios one might envision involve sexual requests or implied sexual requests, but other possibilities might also include requests for uncompensated services (e.g., personal errands, babysitting) or for complicity in unethical actions. September 2015 • Vol. 58/No. 5

A Matter of Opinion

What's Past is Prologue

Twenty-five years ago, the Society published "A White Paper on the Future of Physiology and the Role of the American Physiological Society in It" (2). The "white paper" represented the work of the Long Range Planning Committee (LRPC) chaired by Ernst Knobil. In October 1987, the APS Council charged it with the responsibility of reviewing the discipline of physiology and the role of the Society in its advancement. The initial discussion paper was prepared by Committee member Stanley G. Schultz in August 1988 and revised during several meetings. Presented to

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Business Meeting Minutes

American Physiological Society 168th Business Meeting

Time: 5:45 PM, Tuesday, March 31, 2015 Place: Boston, MA

I. Call to Order

The meeting was called to order at 5:45 PM by President David M. Pollock who welcomed members to the 168th Business Meeting of the American Physiological Society.

II. Election of Officers

President Pollock announced the results of the election. The new President-elect is Jane F. Reckelhoff, University of Mississippi Medical Center (April 01, 2015 to April 25, 2018). The three newly elected Councillors are David D. Gutterman, Medical College of Wisconsin; Lisa R. Leon, U.S. Army Research Institute of Environmental Medicine; and Irene C. Solomon, Stony Brook University (April 01, 2015 to April 25, 2018). The newly elected Councillors will serve a 3-year term. All newly elected officers will assume office at the close of EB2015.

III. Membership

A. Summary of the Membership Status

President-elect Patricia Molina reported on the status of the Society membership. As of March 15, 2015, the current membership of the Society is 10,946, of which 7,722 are regular members, 22 are honorary members, 1,065 are emeritus members, 107 are affiliate members, 1,717 are graduate student members, and 313 are undergraduate student members. She also indicated that women make up 29% of the membership, 27% of our members reside outside of the US, and 40% are under the age of 45.

B. Deaths Reported Since the Last Meeting

A list of the names of those members whose deaths had been reported since the 2014 Business Meeting was displayed. Molina asked the membership to stand and to observe a moment of silence in tribute to their deceased colleagues.

C. APS Fellows Program (FAPS)

APS has launched a new Fellows program that acknowledges noteworthy scientific and professional accomplishments, as well as outstanding leadership and service to the Society. The Inaugural class of 160 fellows was approved by Council. The nomination procedures for the FAPS program will be announced shortly.

IV. State of the Society

President Pollock addressed the membership and spoke on the state of the Society.

A. Expenses and Revenue

Pollock said that the Society is financially sound, with the current revenue at \$19,685,500 and expenses totaling \$19,451,500. The majority of the revenue is generated by the Publications Department, whereas Meetings/ Membership, Education, and the reserves account for the majority of the remaining revenue. The revenue funds a number of initiatives that Pollock discussed during the remainder of his presentation.

B. APS Initiatives

1. Publications. Pollock said that APS and The Physiology Society (TPS) are publishing an open access journal entitled *Physiological Reports*, which launched in March 2013. Since the launch, 543 articles have been published, with an average time to first decision of 9 days and an 85% acceptance rate.

Pollock said that all of the journals are doing well. For the 14 published journals, 6,369 manuscripts were received, and 3,630 were published. The time to first decision is 21.8 days. Three new editors began their terms in 2015. They include Irv Zucker (January 1, 2015), *AJP–Heart;* Nigel Bunnett (July 1, 2015), *AJP–GI&L;* and Bina Joe (July 1, 2015), *Physiological Genomics.*

Pollock reported on *APSselect*, which is a timely collection that highlights the highest quality research papers accepted each month by the 10 APS research journals. These articles are recommended by the Editors, and the final selection is made by the Selection Committee. They can be viewed at *http://apsselect.physiology.org*.

2. Meeting Program. Pollock reported that APS would be holding three conferences in 2015: The 14th International Conference on Endothelin: Physiology, Pathophysiology, and Therapeautics, scheduled for September 2-5 in Savannah, GA; Physiological Bioenergetics: From Bench to Bedside, scheduled for September 9-12 in Tampa,

FL; and Cardiovascular, Renal, and Metabolic Diseases: Physiology and Gender, scheduled for November 17-20 in Annapolis, MD. He also reminded attendees that next year's Experimental Biology meeting will be held in San Diego, CA April 2-6, 2016.

3. Education Programs. Pollock said that the APS Education programs help to promote excellence in science teaching and learning, and helps to train future physiologists. The Education Department is responsible for managing many of the awards that are provided by the APS and provides resources for K-12 education, undergraduates, graduates/professionals, continuing education, and minority scientists.

Pollock reported that the Education Department has developed a new Professional Skills Training (PST) course on Becoming an Effective Teacher. The Education Department is also launching Physiology Educators Community of Practice Fellowship (PECOP) for all physiology educators, and a Leadership Academy to develop the next generation of Society leaders and to help our members succeed in their own careers. The APS Archive of Teaching Resources has new partners and new community tools. Professional Skills Training courses are now available online, with some eligible for graduate credit.

Pollock encouraged all members to plan now for Phun Week 2015, which will be held November 2-6, 2015 (*www. PhUnWeek.org*).

4. Science Policy. Pollock said that the Executive Cabinet, members of Council, and the Science Policy Committee visit the Hill and NIH to discuss federal funding for biological research, for publications access, for peer review, for humane use of animals in research, and to build ties with funding agencies such as NIH and NSF. They have had more than 60 meetings on Capitol Hill and with NIH officials in the past year.

The Science Policy Committee has established the Early Career Advocacy Fellowship. This fellowship engages early career investigators in advocacy activities and provides skills to become long-term advocates for scientific research. The Committee has also developed *SP-News*, a monthly e-mail bulletin of advocacy-oriented information for APS members. The Chapter Advocacy Outreach Program sponsors speakers to discuss research funding and animal issues at chapter meetings. The Committee has also produced "Peer Review 101," a practical guide to becoming involved in the peer review process.

4. International Outreach. Pollock stated that the APS leadership has been invited to participate in several international meetings, including the signing of a memorandum of agreement with the Cuban Physiological Society in Havana, Cuba. The Physiological Society / APS Joint meeting will be held in Dublin, Ireland, July 2016. The IUPS Congress will be in Rio de Janeiro, Brazil in 2017, and the 2nd Pan-American Congress will be in Havana, Cuba in 2019.

C. Final Comments

Pollock stated that the APS plans to engage a consultant to assist in building a strategic communications plan designed to rebrand the discipline and the Society. Pollock also reported that the Society had made more than 400 awards in 2015, totaling more than \$1.2 million. He reminded everyone that this was a significant member benefit.

He reminded the Business Meeting attendees to come to the APS Nobel Prize Lecture presented by Robert J. Lefkowitz and to join their colleagues at the Closing Party on Wednesday, April 1 at 7:00 PM.

V. Awards and Presentations

A. Ray G. Daggs Award

Ray G. Daggs was the APS Executive Secretary-Treasurer between 1956 and 1972. In tribute to his devotion to the Society, the Ray G. Daggs Award was established and is given annually to a physiologist for distinguished service to the Society and to the discipline of physiology. The 2015 Daggs Awardee is John A. Williams.

Williams received his BA from Central Washington State University in 1962 before receiving a combined MD/PhD from the University of Washington School of Medicine. He subsequently completed fellowships in the Department of Pharmacology at the University of Utah, National Institute of Arthritis and Metabolic Diseases, Clinical Endocrinology Branch, and as a Helen Hay Whitney Foundation Fellow in the Department of Pharmacology, University of Cambridge, UK. He joined the faculty at the University of California, San Francisco, in 1973 and became full Professor of Physiology in 1979

Williams has been a very active member of APS since joining the Society in 1973. He has served on the Steering Committee and as Chairperson of the Gastrointestinal Physiological Section; the Nominating Committee; Publications Committee, member and Chair of the Long Range Planning Committee; the IUPS National Organizing Commit-

tee; Chair of the Task Force

on Governance: the Book

Committee; and most recently the Ray Daggs Award



APS President David Pollock presents the Ray G. Daggs Award to John A. Williams



APS President David Pollock presents the Beverly Petterson Bishop Awards for Excellence in Neuroscience to Alain Frigon and Stephen Van Hooser

and Professor of Internal Medicine in 1981. In 1987, he became Professor and Chair of the Department of Molecular & Integrative Physiology at the University of Michigan, Ann Arbor and Professor of Internal Medicine a year later. He is currently the Horace W. Davenport Collegiate Professor of Physiology.

Williams has had a distinguished research career focused primarily in the area of regulation of pancreatic function by hormones and neurotransmitters at the cellular, molecular, and integrative levels. He uses many cuttingedge approaches in his work. Williams's impact in these fields is reflected by his impressive publication record that includes 285 peer-reviewed publications. He has been invited to speak at many conference symposia and academic institutions throughout the world, a testament to the high regard in which he is held.

Williams has also been formally recognized by the scientific community for his research achievements by numerous awards and honors. Some of these include the Ismar Boas Medal from the German Gastroenterological Association; the Horace Davenport Lecture, American Physiological Society; the V.L.W. Go Lifetime Achievement Award in Pancreatology, American Pancreatic Association; the Frank Brooks Memorial Lecture, American Pancreatic Association; Distinguished Service Award, Association of Chairs of Departments of Physiology; the Distinguished Mentor Award, AGA Pancreatic Disease Section; and the George Palade Memorial Lecture, International Association of Pancreatology.

Selection Committee. Williams was elected to the APS Council in 1996 and subsequently served as President from 2003 to 2004. Williams has been a member of a number of other professional societies and has held leadership roles in several of these, including serving as President of the American Pancreatic Association.

In accepting the Award, Williams stated that he would like to express "my gratitude and thank the American Physiological Society for selecting me as this year's Ray G Daggs Award recipient. I have considered myself a physiologist for over 50 years. APS was the first scientific society I joined when I became a faculty member at UCSF. In addition to being the place where I published my first paper and attended my first national and international meetings, APS has provided me the opportunity to grow and develop professionally in editing journals, organizing meetings, heading the GI Section, and eventually serving on Council and as your President. I have always enjoyed working with my fellow physiologists and the APS staff, especially Marty Frank. Again, thank you for this honor."

B. S&R Foundation Ryuji Ueno Award

The S&R Foundation Ryuji Ueno Award was established in 2007 by the American Physiology Society through the generous support of Ryuji Ueno and Sachiko Kuno, and the S&R Foundation. Ryuji Ueno and Sachiko Kuno are founders of Sucampo Pharmaceuticals and the S&R Foundation, both in Bethesda, MD. This award recognizes an APS member who has demonstrated outstanding research promise. The award is given annually to an early career physiologist demonstrating outstanding promise in research in wound healing, tissue remodeling, and/or organ regeneration. The award of \$30,000 is designated for the awardee's research program. APS is pleased to recognize this year's awardee, Hua Jenny Lu, Massachusetts General Hospital/Harvard Medical School.

C. Beverly Petterson Bishop Award for Excellence in Neuroscience

The Beverly Petterson Bishop Award recognizes excellence in neuroscience/neurophysiology research. The award is given to an investigator who holds an academic rank no higher than assistant professor. The award is presented annually to an individual demonstrating outstanding promise based on his/her program in neuroscience/neurophysiology research. Each recipient receives a \$20,000 award designated for use in their research program. APS is pleased to recognize two awardees this year: Alain Frigon (Universite De Sherbrooke) and Stephen D. Van Hooser (Brandeis University).

D. Giles F. Filley Memorial Awards

As a result of a bequest from the family of Giles F. Filley, a memorial fund was established to recognize excellence in research in respiratory physiology and medicine. Two annual awards of \$14,500 are made to junior faculty members (at an academic rank no higher than assistant professor). APS is pleased to recognize this year's awardees, Matthew R. Hodges (Medical College of Wisconsin) and Nicole L. Nichols (University of Missouri).

E. Arthur C. Guyton Award for Excellence in Integrative Physiology and Medicine

The Arthur C. Guyton Award Fund was established in 1993 to recognize the contributions of Arthur C. Guyton and his interests in feedback, modeling, and integrative physiology. The awards are made to an independent, junior investigator pursuing research that uses integrative approaches to the study of physiological function and explores the role of feedback regulation in physiological function. The award is for \$25,000 and is designated for use in the awardee's research program. This year's awardee is Paul M. O'Connor (Georgia Regents University).

F. Lazaro J. Mandel Young Investigator Award

As a result of a bequest from the wife of Lazaro J. Mandel, a memorial fund was established to recognize excellence in epithelial or renal physiology. An award is made to a junior faculty member who has demonstrated outstanding research promise. The award is \$6,500 and is designated for use in the awardee's research program. This year's awardee is Timo M. Rieg (University of California, San Diego).

G. Shih-Chun Wang Young Investigator Award

As a result of a bequest from the wife of Shih-Chun Wang, a memorial fund was established to recognize excellence in physiology. An annual award is made to a junior faculty member who has demonstrated outstanding research promise. The award of \$7,500 is designated for the use in the awardee's research program. APS is pleased to recognize this year's awardee, Jennifer L. Pluznick (John Hopkins Medical School).



APS President David Pollock presents Matthew R. Hodges and Nicole Nicols with the Giles F. Filley Memorial Award



APS President David Pollock presents the Arthur C. Guyton Young Investigator Award to Paul M. O'Connor

H. Dean Franklin Young Investigator

The Dean Franklin Young Investigator Award was established by Data Sciences International (DSI) to recognize Franklin's role in developing instrumentation to monitor physiological function in conscious animals and humans. The award recognizes a postdoctoral scientist or junior faculty member who is pursuing in vivo physiological research and is in the process of establishing







APS President David Pollock presents the Lazaro J. Mandel Young Investigator Award to Timo M. Rieg

APS President David Pollock presents the Shih-Chun Wang Young Investigator Award to Jennifer L. Pluznick

APS President David Pollock and Colleen Whelan of DSI present the Dean Franklin Young Award to Eric Belin De Chantemèle

an independent laboratory. The award recipient receives a travel award of \$1,500 to attend the annual Experimental Biology meeting to present his/her work and a DSI instrumentation starter kit valued at approximately \$20,000. Colleen Whelan of DSI joined Pollock on stage to recognize this year's awardee, Eric Belin De Chantemèle, Georgia Regents University.

I. ADI Macknight Early Career Innovative Educator Award

The ADInstruments Macknight Early Career Innovative Educator Award is named in honor of Anthony Macknight, an APS member since 1978 and founder of ADInstruments. The award honors an APS member who incorporates innovative teaching techniques and technology resources to engage undergraduates in physiology education. The awardee receives a \$1,500 travel award to attend the EB meeting and an institutional grant providing the award recipient's institution with a PowerLab LabTutor Physiology Teaching Bundle or equivalent. This year, the Society is pleased to recognize Trevor Day, Mount Royal University, as the ADInstruments Macknight Early Career Innovative Educator Awardee. Anthony Macknight of ADI joined Pollock to present the award.

J. Dale Benos Early Career Professional Service Award

The Early Career Professional Service Award honors an APS member who is judged to have made outstanding contributions to the physiology community and furthered its broader goals. This award was established to recognize the late Dale Benos, the Society's 79th President, Chair of Physiology at the University of Alabama, Birmingham, and a distinguished physiologist. The award recognizes Dale's dedication and commitment to excellence in the training and mentoring of young physiologists and colleagues. APS is pleased to recognize Alicia Schiller, University of Nebraska Medical Center, as the 2015 Awardee.

K. Arthur C. Guyton Teacher of the Year Award

The Arthur C. Guyton Physiology Teacher of the Year Award is selected by the Teaching Section and is supported by Elsevier. This award recognizes a fulltime faculty member who has demonstrated excellence in classroom teaching, commitment to the improvement of physiology teaching, and contributions to physiology education at the local community, national, or international levels. This year, the recipient of the Guyton Educator of the Year Award is Susan Mulroney, Professor at Georgetown University. Mulroney's solid research background clearly prepared her for teaching at a graduate and professional level. In more recent years, Mulroney has focused her efforts in the teaching area, winning the Golden Apple award every year. Susan Mulroney is more than just a good teacher, she is an innovator. She has been using technology-enhanced learning for a number of years and has been using the "flipped learning" approach with several publications on the subject in the pipeline. Her energy and enthusiasm is never-ending. APS is pleased to present Susan Mulroney with the 2015 Arthur C. Guyton Educator of the Year Award.

L. Annual Reviews Award for **Scientific Reviewing**

The Annual Reviews Award for Scientific Reviewing is given for excellence in providing systematic, periodic examinations of scholarly advances, and provoking discussion that will lead to new research activity.

The award recognizes an APS member who has helped to provide an enhanced understanding of physiology through their review articles. The recipient receives an award

of \$2,000 and travel to attend the EB meeting. APS is pleased to recognize this year's awardee, Mark T. Nelson, University of Vermont Medical Center.

M. Physiologists in Industry Committee Awards

The Novel Disease Model Awards were established in 1999 and are given to a graduate student and to a postdoctoral fellow submitting the best abstracts describing novel disease models. This award is sponsored by the Physiologists in Industry Committee and by Beijing Novo Nordisk Pharmaceuticals Science and Technology Co., Ltd. The recipient of this year's postdoctoral award is Denise Cornelius, University of Mississippi Medical Center, and the recipient of this year's predoctoral award is Casey Carmichael, Boston University of School of Medicine.

N. International Early Career Physiologist **Travel Awards**

The International Early Career Physiologist Travel Award program was established in 2008 to assist with travel expenses for international early career physiologist who are attending the APS Annual Meeting at EB to present their work. This year's awardees are Sara Jones (University of Melbourne), Anna Paula de Oliveira Leite (Universidade Federal de Sao Paulo), Louise See Hoe (Griffith University), Marlou Dirks (Maastricht University), Eliza Prodel (Fluminense Federal University), James Garnett (Newcastle University), Alexis Gonzalez (Pontificia Universidad Catolica De Valparaiso), Kun-Ze Lee (National Sun Yat-sen University), Rudo Mapanga (Stellenbusch University), Angela Scott (McMaster University),







APS President David Pollock presents Alicia Schiller the Dale J. Benos Early Career Professional Service Award

Graham Scott (McMaster University), Dao Xiang (Naval Medical Research Institute).

O. Fleur Strand Professional Opportunity Awards

The Fleur L. Strand Award was established to recognize the achievements of a graduate student or postdoctoral fellow, enabling the recipient to attend the EB meeting. The Strand award is granted to the top-ranked Caroline tum Suden/Frances Hellebrandt Professional Opportunity Award applicant. The award is named in honor of the late Fleur Strand, formerly Professor Emerita, New York University. Strand was the first to show that stress-evoked hormones such as ACTH can have a direct effect on peripheral systems, independent of the adrenal gland. The award is open to a physiologist working in any area of research. The awardee receives \$1,000 and complimentary advanced registration for the EB meeting. APS is pleased to recognize this year's awardee, Frank T. Spradley, University of Mississippi Medical Center.

P. Gabor Kaley Professional Opportunity Awards

The Gabor Kaley Professional Opportunity Award was established in recognition of Gabor Kaley's longstanding service to the discipline of physiology and significant contributions to our understanding of vascular regulation and microcirculation. The Kaley Award is granted to two Caroline tum Suden/Frances Hellebrandt Professional Opportunity Award awardees. The awards reflect on Gabor Kaley's long-standing commitment to the training of young scientists. APS is pleased to recognize this year's awardees Ayeeshik Kole

(Indiana University School of Medicine) and Andrew Lutkewitte (Indiana University School of Medicine).

Q. Steven M. Horvath Professional Opportunity Awards

The Steven M. Horvath Award is given to the top two Caroline tum Suden/Frances Hellebrandt Professional Opportunity Award applications from minority candidates. This award is a reflection of Horvath's long-term commitment to the training of minority physiologists. These awards are made possible by a bequest of the family of Steven M. Horvath. APS is pleased to recognize this year's awardees, Raymond A. Isidro Vega (Ponce School of Medicine and Health Sciences) and Monica Santisteban (University of Florida).

R. Caroline tum Suden/Frances Hellebrandt Professional Opportunity Awards

The recipients of the Caroline tum Suden awards are selected by the Women in Physiology Committee chaired by Angela Grippo. This year's 46 awards were made possible by the bequests of Caroline tum Suden and Frances Hellebrandt, who were long-time members of the Society. Awards are open to graduate students or postdoctoral fellows, who receive a \$500 check and complimentary advanced registration for the EB meeting.

S. Recognition of Outgoing Section Chairs

Siribhinya Benyajati, Chair of the Comparative and Evolutionary Section, Harold Schultz, Chair of the Neural Control and Autonomic Regulation Section, and Jerold Turner, Chair of the Gastrointestinal and Liver Physiology Section, completed their terms at the close of the EB15 meeting. Pollock thanked them for their service to their sections and to APS and presented them with certificates of service.

T. Recognition of Outgoing Committee Chairs

Angela J. Grippo, Chair of the Women in Physiology Committee, Hershel Raff, Chair of the Publications Committee, Jennifer Sasser, Chair of the Trainee Advisory Committee, Ann M. Schreihofer, Chair of the Section Advisory Committee, Harold M. Stauss, Chair of the Chapter Advisory Committee, and Jeff M. Sands, Chair of the Finance Committee, completed their terms at the close of the EB15 meeting. Pollock thanked them for their service to their respective committees and to APS.

U. Recognition of Outgoing Councillors

Councillors Pamela K. Carmines, Marilyn P. Merker, and William T. Talman completed their terms at the close of the EB15 meeting. Pollock thanked them for their service to the Society and presented them with a certificate.

V. Recognition of Past President Kim Barrett

Pollock asked the membership to join him in offering a special thank you to our outgoing Past President, Kim Barrett, for her hard work and dedication to APS over the past 3 years. He stated that Barrett has shown exceptional leadership to the Society throughout her distinguished career that was reflected in her time as President. Pollock emphasized his extreme personal privilege in working with Barrett on the Executive Cabinet and stated that he learned a great deal from Barrett during this time. Barrett also displayed the highest standards and goals in her role through a

> keen sense of awareness and sensitivity to the Society's membership and is always ready to listen and consider ideas and opinions that are different from her own. She has been a champion of many important accomplishments throughout her tenure too numerous to mention in this meeting, but have included the development of the APS Leadership Academy, building stronger ties to physiology organizations outside of the U.S., and endowing many of our



APS President David Pollock and Robert A. Augustyniak present the Arthur C. Guyton Educator of the Year Award to Susan E. Mulroney



APS President David Pollock presents the Annual Reviews Award for Scientific Reviewing to Mark T. Nelson





APS President David Pollock presents the Fleur Strand Professional Opportunity Award to Frank T. Spradley

APS President David Pollock presents the Presidential Recognition Plaque to Kim Barrett, APS Past President

award programs, just to name a few. Clearly, the Society has gained tremendously from all she has done, and we look forward to her future impact in other roles.

In accepting the Society's recognition of her service, Barrett noted what a privilege it had been to serve the members of the APS as their President and that it was certainly a highlight of her professional career. She said that it had been a particular pleasure to work as a member of the Presidential team with the four Presidents with whom her term overlapped-Joey Granger, Sue Barman, David Pollock, and Patricia Molina-to push forward on a variety of priorities to strengthen the Society. She noted she was particularly proud of having bolstered our international partnerships, including with the Brazilian Physiological Society and with The Physiological Society of the UK. She also expressed her appreciation for Council as well as the Society's talented and dedicated staff that had helped the Presidents put in place a number of initiatives, and especially Marty Frank, whose commitment to the Society and friendship had been incredibly valuable. Overall, she said she would miss being part of the Society's leadership very much-especially having spent 12 continuous years on Council-but that she knew the APS was in good hands.

VI. Conclusion

Pollock summed up his experience as President as follows: "It has been an extreme pleasure and honor to serve the Society as President. I believe more great things are to come in the future as I know that our scholarly activity will keep APS and the discipline of physiology in the forefront of scientific endeavor. I wish to thank my wife and all the members of our labs who have provided support and pulled together when I was busy with APS instead of taking care of the lab. Going forward, it is my sincere hope that the value of personal relationships among fellow scientists will receive the highest priority in the future strategy of the Society. It is through these face-toface meetings, such as EB, that allow the greatest connectivity, creativity, and insight into our discipline. I believe APS has a great future, that we can live up to its glorious past if we stay focused on the 'why' we do what we do."

VII. Passing of the Gavel

Pollock then passed the gavel to Patricia Molina, Louisiana State University Health Science Center, and incoming President of the American Physiological Society. Molina, upon accepting the gavel, said, "Although I will have an additional opportunity at the 2016 business meeting to officially thank and recognize the contributions of David Pollock to the leadership of our Society, I want to take this opportunity to recognize his strong support for the discipline and the scientific activities and achievements of our members. He has been a strong advocate for all scientists in our Society. Finally, for those in the audience who see someone of color in the podium, know that APS is an inclusive Society where opportunities for advancement are actively pursued and promoted by the leadership. You should feel proud of being a member of a Society that recognizes the contributions of its diverse membership. I am committed to do the best job that I can, and I trust that I will be able to count on your support in addition to that of the extraordinary staff at APS."

VIII. New Business

No new business.

There being no new business, the meeting was adjourned at 6:35 PM, March 31, 2015. ●

Patricia Molina President-Elect

Continued from page 219:

How to Respond to "Inappropriate Invitations"

To be more specific, imagine you are working late one evening in the lab and your advisor, either also working late or returning unexpectedly, suggests that the two of you go out for a drink and/or dinner, perhaps at the advisor's apartment. Or, imagine you are away at a scientific conference and your advisor invites you to his or her room, ostensibly to review your talk scheduled for the following day or to review your performance at the talk or poster you presented earlier that day (Ref. 4 (Creep PI) discusses a case of an inappropriate request). For a somewhat different scenario, imagine that you have been dating another student or postdoc and your advisor or a member of your committee is relentless in asking you about that relationship, including its most personal and intimate aspects. Perhaps your dating partner works in another lab that is in some ways a rival to your lab. Eventually, the probing advisor or committee member asks you to exploit your relationship to get some "insider information" about the other lab's progress on a certain project.

Recently, several thought-provoking blog posts and news articles on this general topic, as well as harassment of trainees, have been published (1, 3, 4, 6). Several members of the APS Trainee Advisory Committee have themselves experienced or knew of someone who experienced such situations and thought an article like the present one might be useful to others who find themselves in such circumstances.

Factors to Consider

When faced with such a situation, it is important to assess what the "request" is. Facts, possibilities, and speculations should be kept distinct in your mind. For example, an advisor offering a student dinner or inviting the student to a hotel room to review a talk doesn't necessarily mean that the advisor is planning to request or demand a sexual relationship, even assuming that the advisor and student are of different sexes or complementary sexual orientation. Nontheless, a male advisor inviting a younger female student alone to a hotel room or apartment is inappropriate, as it would also be if the genders were reversed. The history of your relationship with your advisor or senior person making the request is important. Advisors and students having a drink or dinner together while away at a meeting is a long-standing tradition and a great opportunity for "bonding" and strengthening the mentor-student relationship. But why are you dining alone, rather than with a group? Is the proposed locale the campus pub or a "romantic" French restaurant. Context is important. Are you and your advisor the only ones from your lab attending this out-of-town meeting? Is your advisor a big fan of French food, something you rarely can afford on your stipend, and he or she is merely trying to share the experience with you? PhD students and postdocs are adults and should be able to distinguish between what is "appropriate" and what is "inappropriate."

Another important distinction to make is, if the request is deemed inappropriate, what kind of impropriety it represents. For example, the advisor who persists in asking about your dating and sex life may be committing sexual harassment. Harassment is prohibited under labor laws, but student and postdocs have protections under these laws even if they are primarily students rather than employees. Moreover, most universities have special policies prohibiting harassment of students by faculty or other students. The advisor who invites the student to his or her apartment or hotel room may not be guilty of harassment unless this is a persistent pattern and/or there is a clear quid-pro-quo implication of special treatment in exchange for sex. But this behavior may be in violation of university policies governing faculty-student relationships or professional standards governing mentor/advisor-trainee relationships. Of course, if an advisor or faculty member forces a sexual encounter with a trainee (or vice versa) that would constitute sexual assault, which rises somewhat beyond the level of "inappropriate." The faculty advisor who attempts to use the student to purloin research secrets from the rival lab might be guilty of professional misconduct or perhaps even research misconduct.

These distinctions are important because they will determine what your most appropriate options for action might be.

Relevant Laws, Regulations, and Policies

Consider the range of "offenses" the inappropriate requests might reflect in the scenarios we've outlined. These include sexual harassment, broaching a studentfaculty boundary, research misconduct, or sexual assault.

Sexual harassment is prohibited in the workplace by federal and state laws. This term can include unwelcome

sexual advances, requests for sexual favors, or other types of behavior, such as comments related to sex, that are persistent or frequent enough to create a hostile or offensive work environment. Graduate students and postdocs who work in the laboratory, even though they are "students" or trainees, may also be considered employees for the purpose of the protection of these laws. Since harassment and sexual harassment are grounded in statutes, there is a complex set of standards based on regulations and case law that determines whether any particular behavior constitutes harassment. Persistent behavior that makes you uncomfortable-frequent sexrelated jokes or comments, regular inquiries about your sex life, etc.-would likely qualify. Unwanted sexual advances from a work supervisor might also qualify, even if it were only a single occurrence. Your university or company's human resources (HR) department is often the best source for information about harassment/sexual harassment guidelines, and designated staff of this department are usually trained to handle complaints of this sort. The HR department may also provide relevant printed or online resource material.

Most universities also have specific policies addressing the relationship between faculty and students. Such policies often express guidelines or explicit rules regarding social boundaries between faculty and students. Prohibitions against dating or sexual relationships, as well as harassment and sexual harassment, may be included. Such policies avoid any uncertainty regarding the student's status as student or employee and also extend protocols for the student regarding faculty who don't have direct supervisory authority over the student. Such policies are usually overseen by the university's Office of Student Affairs or the graduate dean's office.

Sexual assault can include "date rape," with or without the intoxication of the victim, and more violent forms of rape. In most cases, the victim has the option of pressing a charge of rape against the perpetrator or forgoing this route. If the incident takes place on campus, or involves university personnel, there should be university adjudication processes available as well.³ Victims of sexual assault may suffer emotional as well as physical trauma. Early decisions to report the assault and collect evidence are important. The important decisions regarding legal actions can be deferred until the victim is able to make a considered judgment. Many universities offer counseling or crisis centers that can offer crucial support to victims of sexual assault. Campus security officers can provide initial support with regard to reporting the assault to the police and gathering evidence.

Efforts to engage someone in stealing laboratory data or sabotaging experiments might violate university or campus codes of professional conduct or even state or federal laws. Use of someone else's intellectual property, which includes data and novel ideas, without authorization might constitute plagiarism and thus research misconduct. Most universities have a Research Integrity Officer who can provide guidance on these matters.

A Practical Guide

If you are a student or postdoctoral trainee who is on the receiving end of one of these uninvited inappropriate requests, how should you respond? Obviously, you don't want to do something you believe is immoral, unethical, or demeaning. On the other hand, the person making the request has some power over your future. You don't want to turn him (or her) against you. This is the "dilemma" that such situations pose.

One way to resolve this dilemma is to follow the path of reasoning and action outlined below. Try to think clearly and act deliberatively rather than impulsively. Some actions may have significant repercussions, but most can be anticipated and either buffered or minimized.

First, don't do something you know or believe is wrong or dangerous.

Second, recognize that the "power" the faculty member has over your future is limited. For example, the ability of your dissertation advisor to retard your progress can be counterbalanced somewhat by your dissertation committee and dean. For instance, if your advisor refuses to write a letter of recommendation on your behalf because you had lodged a (legitimate) complaint against him or her, your dean or another senior faculty member can write a letter explaining the situation. Ideal? No. But you should not feel like you are isolated on an uncharted island.

Third, critically analyze the situation. You're a scientist, and critical analysis is supposed to be one of your strengths. What was the request? What assumptions are you making about the request? Can you ask for clarification ("Who will be joining us for dinner?") or a modification of the request ("Could we meet in the lobby bar where there is good WiFi and tables for our laptops?")? Was the request truly inappropriate or just unexpected? Why was it inappropriate? Fourth, consider whether you should turn to someone for advice and, if so, to whom. Unless the matter is relatively trivial, seeking advice might be a good option. In general, you should speak with someone senior to you, who knows your university's or company's policies and organizational structure. If you are only seeking advice at this stage, however, you need to be aware that some individuals may be required to act on any specific information you give them because of their official responsibilities. Deans and department chairs usually fall in this category, although they may be willing to speak with you about a "hypothetical" situation without specific people identified. Some organizations have individuals designated as "ombudsmen" or advocates who operate independently of the management structure and might serve as a good resource in such thorny cases. Since you are asking for advice, it would also be helpful to you if you spoke to someone you respected and trusted. Seeking advice from a senior person at another institution might be helpful, especially if it were similar to yours, but this would lack specific tips, such as to whom to turn next.

Speaking to a peer may provide some emotional support or, depending on the inclination of the peer chosen, might either fuel your outrage or dampen your enthusiasm for any action. What is lacking with peer advisement, however, is the broader perspective of someone with more experience and knowledge of the available options. There is also the danger of engendering a gossip trail that may eventually have harmful consequences both for the alleged offender and also for yourself.

A good alternative here might be to utilize your network of mentors that you have established outside of your own institution. These senior people may have experienced or dealt with similar situations and should be able to provide important perspective. Moreover, they are under no obligation to report anything in an official capacity.

Fifth, decide whether to let the matter drop, confront the person making the inappropriate request, or filing a formal "complaint." Here is the real nub of the problem. Letting the matter drop usually seems the easiest choice– no awkward confrontations, no need to "calibrate" your response. Each of you, at least in your imagination, can go about your business as if the original incident had never occurred. But is this always the wisest choice? If the original request had been a "casual" indirect one–a spontaneous invitation to dinner or to share a drink in a hotel room–your equally "casual" denial ("No thanks, I've already eaten," or, "I'm turning in early") may let the matter fade away. But what if the requestor does, in fact, have his or her "eye" on you and returns with a more "well crafted" invitation. Or what if the original request had been more overt than ambiguous? Will the likelihood of a repeat incident taint the atmosphere of your everyday environment? And consider the possibility that you are not the first trainee this individual has invited to cross over the normal professional boundary between advisor and trainee?

A second option would be to confront the senior person and tell him or her that this request made you uncomfortable and that you would like to maintain a respectable and professional relationship. You can frame your "statement" in such a way as to avoid being accusatory while clearly stating why you were uncomfortable: "I understand that you don't want to take your two small children to this afternoon's plenary session, but I am also attending this meeting for my own professional development and not as a babysitter," or, "It was very nice of you to offer to take me to dinner, but I would just feel very uncomfortable eating with a married man in Le Café de l'Amour while your wife and two kids are home with the chicken pox. A pizza in the lab while we went over my latest results would have been more than generous." You might be straightforward or use humor to convey your message, depending on the situation and your communication style. Of course, if you have tried this already and the behavior has recurred, or if you feel threatened by the senior person, you shouldn't try this direct approach again.

There may also be situations in which your past experience or immediate concern for your personal safety dictates that you extricate yourself from the scene ASAP without a confrontation, whether firm or witty. You needn't always be a hero (Ref. 2 discusses sexual assault). But if the perpetrator is someone whom you will need to face or interact with repeatedly, you may need to act in some way at a later time.

Even if you do confront the requestor directly, you should also seriously consider the third option, viz., reporting the incident to someone in authority, such as a department head, dean, or HR official. Perhaps this behavior is part of a pattern that you are not aware of and your report might allow the institution to take appropriate action. Even if it is a first "offense," a department chair or dean can deliver the alleged perpetrator a different message than you can. Students and postdocs often make the assumption that in a "he said/she said" situation, their word will count for very little or nothing against a valuable, prestigious, grant-revenue-producing senior faculty member, and, so, it is better to say nothing. It is true that in many types of "dispute" the opinion of a faculty member or senior investigator carries more weight than that of a trainee. But universities also recognize their responsibility toward their students and postdocs, and, accordingly, both universities and companies tend to value an ethical and professional environment in the workplace. It is unlikely that egregious behavior by even a senior faculty member would be allowed to pass without at least a reprimand and warning against future occurrences. Depending on the nature and seriousness of the behavior, further actions might be taken.

In some cases, complaints against an individual may be pursued confidentially, i.e., without revealing to the accused the identity of the accuser. That is not likely to be possible in the sort of cases discussed here because the circumstances of the allegations will likely "reveal" the identity of the complainant to the accused individual. Nevertheless, efforts can be make to protect your identity from the general community and to minimize repercussions against you. Moreover, the law protects victims of sexual harassment or workplace harassment and the alleged perpetrator is informed of this and is instructed to refrain from retaliation since this is a violation of the law and, in most cases, institutional policy.

Conclusion

Having to deal with such inappropriate requests from people with authority over you is not a situation that you would ever want to encounter. Nevertheless, it sometimes happens. If it does, you may take some solace in recognizing that you are not the first person this has happened to. Moreover, as outlined in this article, there are certain responses you can make that will both preserve your integrity (very important) and also defuse the possibility of reprisals (also important). In situations that are sufficiently egregious, your response may also lead to the individual making the inappropriate or improper request being subject to appropriate and proper disciplinary action.

Acknowledgments

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To comment on this article or ask a question of the author, see *the-aps.org/forum-inappropriate*.

References

1. Aschwandenaug, C. Harassment in science, replicated (Online). In: *New York Times*, 2014, p. D1. *http://www.nytimes.com/2014/08/12/science/harassment-in-science-replicated.html* [11 Aug. 2014].

2. Ask Dr. Isis and a candid response to an open letter (Online). In: *Isis the Scientist Blog. http://isisthescientist. com/2010/02/25/ask_dr_isis_and_a_candid_respo/* [25 Feb. 2010].

3. Ask Isis-help! My advisor won't stop looking down my shirt (Online)! In: *Isis the Scientist Blog. http://isisthescientist.com/2015/06/01/ask-isis-help-my-adviser-wont-stop-looking-down-my-shirt/* [1 June 2015].

4. Clancy KBH, Nelson RG, Rutherford JN, Hinde K. Survey of academic field experiences (SAFE): trainees report harassment and assault. *PLoS One* 9: e102172, 2014.

 Creep PI. Science Professor. A Scientopia Blog (Online). http://science-professor.scientopia.org/2012/02/29/creeppi/ [29 Feb. 2012].

6. Lewin T. Harassment case stirs doubts on women's treatment at Yale (Online). In: *New York Times*, 2014, p. A1. *http://www.nytimes.com/2014/11/02/us/handling-of-sexual-harassment-case-poses-larger-questions-at-yale.html* [1 Nov. 2014].

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¹I will use the term "trainee" in this article to mean both students and postdoctoral fellows.

²Students frequently complain that their advisors ask them to work on projects unrelated to their own dissertation project. That may or may not be appropriate within the context of the advisor's dual roles as PI and dissertation advisor, but this particular issue is outside the scope of this article. ³The adequacy of university protocols for dealing with allegations of sexual assault is a topic beyond the scope of this article. The only point I wish to make here is that there are usually both institutional and legal options to consider if you are the victim of a sexual assault.

Continued from page 219: What's Past is Prologue

the Council, it made multiple recommendations that have been considered, modified, and incorporated into the decisions and actions of future APS leaders.

For those of you who have not previously read the LRPC report, I would encourage you to do so. Sadly, as one often hears, the more things change, the more things stay the same. While the discipline and the Society have advanced considerably over the last 25 years, the problems we face today are not much different from those addressed by Knobil's committee; indeed as is stated in the 1990 report, "The disquietudes that have led to the repeated appointment of investigative and planning groups by successive Councils of the Society have remained essentially unchanged" in the decades since Ralph Gerard held a "Mirror to Physiology" in 1958.

I bring up the 1990 LRPC report and past efforts to better define the discipline and the role of APS in it because the Society is once again preparing to consider ways to reposition itself in the current environment of research funding, curricular revision, and institutional restructuring. It is an effort that will engage the membership but will ultimately serve as the basis for future initiatives within the Society.

Not surprisingly, for a Society that is 128 years old, change comes slowly; institutional inertia needs to be overcome and preconceived notions overturned. One such change, first suggested in Knobil's report, was the establishment of a new class of membership: Fellows of the American Physiological Society. Fellowship was suggested in 1990 because there was a perception that the criteria for membership had been "relaxed to the point where essentially anyone with a professional interest in physiology can be admitted to membership." While this was true to a great extent, applications were still being reviewed by the Membership Committee and their recommendations approved by the Council. Granted applications were not being voted on by the membership at the annual Business Meeting as was done when I was elected, there was still a degree of rigor associated with election to membership. While the process may have been perceived as rigorous, in reality almost everyone who applied was voted into membership. In recognition of this reality, several years ago, the Council decided to allow the APS staff to

review applications based on agreed upon requirements to expedite the acceptance process and to encourage engagement with the applicant.

When the Fellowship category was recommended in 1990, it was considered as being elitist and perceived negatively as the Society was trying to be more inclusive. However, in 2012, the Membership Committee, led by Rob Brock, decided that the time was right for a Fellows category and presented a proposal to Council. The suggestion arose because the membership procedures had been eased, and there was a need to develop a category that recognized our members' commitment, contributions, and service to the discipline and the Society. The category was approved during the summer 2014 meeting, and the inaugural class was elected by Council during the spring 2015 meeting. On page 239, the Society is pleased to announce the names of the Society's inaugural class of 151 APS Fellows. This represents the inaugural class and does not include all who are worthy of the Fellows of the APS (FAPS) designation. As stated in my September 2014 editorial "America's Got Talent" (1), the goal of the Fellows program "is to identify those individuals who have contributed significantly to the Society and to the discipline and create a cadre of Fellows who can be turned to for assistance and advice in the future." If you think you have the talent to be an APS Fellow, please apply. A new class will be identified on an annual basis. ●

Martin Frank

References

- 1. Frank M. America's got talent. *The Physiologist* 57: 193, 252, 2014.
- Giebisch GH, Granger JP, Greenleaf JE, Lydic RB, Mitchell RH, Nadel ER, Schultz SG, Wood JD, Knobil E. A "white paper" on the future of physiology and the role of the American Physiological Society in it. *The Physiologist* 33: 161-177, 180, 1990.

Publications

2014 Impact Factors Released for APS Journals

Thomson Reuters has released its 2015 Science Edition of the *Journal Citation Reports*, which gives journal impact factors and rankings of approximately 8,000 science journals. The 2014 impact factors of APS journals, along with a comparison of the past 4 years, are given in the table below. The table also shows the rank of APS journals in the physiology category, as well as each journal's cited half-life.

Comprehensive Physiology experienced the largest increase, up to 4.739 from 1.685 a year ago. Other journals with increased impact factors are *AJP-Lung*

(4.080), *AJP-GI* (3.798), and *AJP-Cell* (3.780). *Physiological Reviews* retains the top spot in the field of physiology at 27.324 (24,528 citations).

The 2015 Journal Citation Reports includes an update to the Five-Year Impact Factor and *Eigenfactor*TM Metrics in JCR Web. *Eigenfactor*TM Metrics use citing journal data from the entire JCR file. The *Eigenfactor*TM score and the *Article Influence*TM score are calculated based on the citations received over a 5-year period.

	Thomson Reuters Impact Factor Data							Eigenfactor	Metrics	
Journal	2010	2011	2012	2013	2014	5-Year Impact Factor	2014 Cited Half-Life	2014 Rank Among Physiology Journals	2014 Eigenfactor™ Score	2014 Article Influence™ Score
Physiological Reviews	28.417	26.866	30.174	29.041	27.324	35.337	>10.0	1	0.03834	13.765
Physiology	7.657	7.953	6.750	5.645	4.857	7.575	6.2	6	0.00740	2.908
Comprehensive Physiology			0.807	1.685	4.739	4.023	2.4	8	0.00555	1.57
AJP-Lung	4.137	3.662	3.523	4.041	4.080	3.908	8.0	14	0.02017	1.224
AJP-Heart	3.880	3.708	3.629	4.012	3.838	3.881	9.1	16	0.04205	1.190
AJP-GI	3.522	3.431	3.649	3.737	3.798	3.865	8.0	17	0.02471	1.223
AJP-Endo	4.686	4.746	4.514	4.088	3.785	4.614	7.9	18	0.03427	1.532
AJP-Cell	3.817	3.536	3.711	3.674	3.780	3.914	8.2	19	0.02776	1.245
AJP-Renal	3.792	3.682	3.612	3.300	3.248	3.521	7.9	22	0.02780	1.053
AJP-Regu	3.284	3.336	3.284	3.529	3.106	3.366	9.5	25	0.02879	1.071
Journal of Applied Physiology	4.232	3.753	3.484	3.434	3.056	3.773	>10.0	26	0.03909	1.148
Journal of Neurophysiology	3.114	3.316	3.301	3.041	2.887	3.313	>10.0	29	0.06180	1.340
Physiological Genomics	3.368	2.735	2.806	2.812	2.374	2.757	7.3	40	0.00760	0.830
Advances	1.382	1.547	1.217	1.237	0.944	1.142	8.1	76	0.00096	0.276

APS Releases 2014 "Most Shared" Article List

The APS Publications Division has released the top 25 most shared articles of 2014, according to Altmetric. com. The scores represent a weighted score of the number of times the articles were shared on news sites, blogs, research portals, and various social media

venues. The top venues for sharing APS articles were Mendeley, Twitter, and Facebook. (To read more about how a score is calculated, visit *http://support.altmetric. com/knowledgebase/articles/83337-how-is-the-altmetric-score-calculated.*) •

Rank	All- Time Score	Score in 2014	Article Title	Journal
1	615	615	The power of the mind: the cortex as a critical determinant of muscle strength/ weakness	Journal of Neurophysiology
2	163	163	Alcohol impairs skeletal muscle protein synthesis and mTOR signaling in a time- dependent manner following electrically stimulated muscle contraction	Journal of Applied Physiology
3	136	136	Reduced resting skeletal muscle protein synthesis is rescued by resistance exercise and protein ingestion following short-term energy deficit.	American Journal of Physiology – Endocrinology & Metabolism
4	134	134	Maintained cerebral oxygenation during maximal self-paced exercise in elite Kenyan runners	Journal of Applied Physiology
5	133	133	Ibuprofen treatment blunts early translational signaling responses in human skeletal muscle following resistance exercise	Journal of Applied Physiology
6	120	120	Caffeine consumption around an exercise bout: effects on energy expenditure, energy intake, and exercise enjoyment	Journal of Applied Physiology
7	148	104	Exercise is the real polypill	Physiology
8	156	102	Zonulin and its regulation of intestinal barrier function: the biological door to inflammation, autoimmunity, and cancer	Physiological Reviews
9	100	100	Why wet feels wet? A neurophysiological model of human cutaneous wetness sensitivity	Journal of Neurophysiology
10	219	98	Resistance exercise load does not determine training-mediated hypertrophic gains in young men	Journal of Applied Physiology
11	92	92	Transient energy deficit induced by exercise increases 24-h fat oxidation in young trained men	Journal of Applied Physiology
12	91	91	Are running speeds maximized with simple-spring stance mechanics?	Journal of Applied Physiology
13	90	90	Concomitant low-dose doxorubicin treatment and exercise	American Journal of Physiology – Regulatory, Integrative & Comparative Physiology
14	90	90	Timed-daily ingestion of whey protein and exercise training reduces visceral adipose tissue mass and improves insulin resistance: the PRISE study	Journal of Applied Physiology
15	88	88	Ceramides mediate cigarette smoke-induced metabolic disruption in mice	American Journal of Physiology – Endocrinology & Metabolism
16	83	83	Soy-dairy protein blend and whey protein ingestion after resistance exercise increases amino acid transport and transporter expression in human skeletal muscle	Journal of Applied Physiology

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17	80	80	Normal physical activity obliterates the deleterious effects of a high-caloric intake	Journal of Applied Physiology
18	80	80	Haptic feedback enhances rhythmic motor control by reducing variability, not convergence rate	Journal of Neurophysiology
19	79	79	Cold water immersion enhances recovery of submaximal muscle function after resistance exercise	American Journal of Physiology – Regulatory, Integrative & Comparative Physiology
20	78	78	Biomarkers of vascular function in pre- and recent post-menopausal women of similar age: effect of exercise training	American Journal of Physiology – Regulatory, Integrative & Comparative Physiology
21	77	77	Eccentric exercise: mechanisms and effects when used as training regime or training adjunct	Journal of Applied Physiology
22	76	76	Aerobic exercise but not resistance exercise reduces intrahepatic lipid content and visceral fat and improves insulin sensitivity in obese adolescent girls	American Journal of Physiology – Endocrinology and Metabolism
23	75	75	Exercise-induced AMPK activation does not interfere with muscle hypertrophy in response to resistance training in men	Journal of Applied Physiology
24	74	74	Genetic influence on exercise-induced changes in physical function among mobility-limited older adults	Physiological Genomics
25	93	72	Heat acclimation improves exercise performance	Journal of Applied Physiology

Current Calls for Papers

Physiological Genomics

- Gut Microbiota in Health and Disease
- Systems Biology and Polygenic Traits

Journal of Neurophysiology

- Methods to Understand Brain Connections and Neural Function (Submission deadline: January 1, 2016)
- Neurological Disease and Autonomic Dysfunction (Submission deadline: January 1, 2016)
- Active Sensing (Submission deadline: January 1, 2016)

Advances in Physiology Education

• Pre-Professional Education in Transition

Journal of Applied Physiology

• Analogs of Microgravity: Space Research Without Leaving the Planet (Submission deadline: October 1, 2015)

American Journal of Physiology–Cell Physiology

• Cell and Molecular Processes in Cancer Metastasis (Submission deadline: December 31, 2015)

- Cell Signaling: Proteins, Pathways and Mechanisms (Submission deadline: December 31, 2015)
- Cellular Responses to Hypoxia (Submission deadline: December 31, 2015)
- Omics and Epithelial Cell Biology
- Stem Cell Biology (Submission deadline: December 31, 2015)
- STIM and Orai Proteins in Calcium Signaling (Submission deadline: December 31, 2015)

Current Calls for Papers, continued

American Journal of Physiology–Endocrinology and Metabolism

- Islet Biology (Submission deadline: December 31, 2015)
- Novel Aspects of Adipocyte Biology (Submission deadline: December 31, 2015)
- CNS Control of Metabolism (Submission deadline: December 31, 2015)
- Endocrine and Metabolic Dysfunction during Aging and Senescence (*Submission deadline:* December 31, 2015)
- Metabolic Control by Inflammation and Immunity (Submission deadline: December 31, 2015)
- Mitochondrial Dynamics and Oxidative Stress in Disease (*Submission deadline:* December 31, 2015)
- Stress-Induced Metabolic Regulation (Submission deadline: December 31, 2015)

American Journal of Physiology–Gastrointestinal and Liver Physiology

- Microbiome and Host Interactions
- Nutrient Sensing, Nutrition, and Metabolism
- Systems Biology
- Translational Human Pathophysiology

American Journal of Physiology–Heart and Circulatory Physiology

- Quantitative Analyses of Coronary Vascular and Cardiac Mechanics in Health and Disease (*Submission deadline:* January 16, 2016)
- Cardiovascular Epigenetics: Phenotypes and Mechanisms (Submission deadline: January 16, 2016)
- Cardiovascular Mitochondria and Redox Control in Health and Disease (*Submission deadline: November 1, 2015*)
- Plasma Membrane Integrity in Cardiovascular Physiology and Pathophysiology (*Submission deadline: November 1, 2015*)
- Small Vessels–Big Problems: Novel Insights into Microvascular Mechanisms of Diseases (*Submission deadline: January 15, 2016*)

American Journal of Physiology–Lung Cellular and Molecular Physiology

- Electronic Cigarettes: Not All Good News (Submission deadline: October 1, 2017)
- Ion Channels and Transporters in Lung Function and Disease
- Age-Related Dysfunction in Lung Barrier Function in Health and Disease

- Real-Time Visualization of Lung Function: from Micro to Macro
- Bioengineering the Lung: Molecules, Materials, Matrix, Morphology, and Mechanics
- Biomarkers in Lung Diseases: from Pathogenesis to Prediction to New Therapies
- Sex Differences in the Respiratory System
- Translational Research in Acute Lung Injury and Pulmonary Fibrosis

American Journal of Physiology–Renal Physiology

- Endothelin in Renal Physiology and Disease (*Submission deadline:* June 30, 2016)
- Imaging Techniques in Renal (Patho)physiology Research (*Submission deadline: June 30, 2016*)
- Inflammation and Inflammatory Mediators in Kidney (*Submission deadline:* June 30, 2016)
- Purinergic Signaling Mechanisms in the Lower Urinary Tract (*Submission deadline: June 30, 2016*)
- Mechanism and Treatment of Renal Fibrosis and Treatment (Submission deadline: June 30, 2016)
- Transport Proteins as Regulators of Blood Pressure Homeostasis (*Submission deadline: December 31, 2015*)

For a complete list of current Calls for Papers, visit the APS website.

APS <u>News</u>

Dinner with a Nobel Laureate



From *left* to *right*: Michael Schumacher, Erica Dale, Robert Lefkowitz, Cassondra Williams, Brendan Dougherty, Nicole Nichols

Some of the members of the Trainee Advisory Committee Williams. Nicole Nichols. (Cassondra Michael Schumacher, and myself) and a guest got a free dinner from the APS at Experimental Biology, 2015, in Boston. Quite a generous offer from Marty Frank himself! With this special guest, we got to talk about the Duke basketball team (pre-National championship, of course), a daughter's proposal to be married, a calling to leave clinical practice and go to research, a proud, immigrant mother who pushed her son to succeed in The Bronx of the 1940s, and a laptop slide show about what it's like to be a Nobel Prize winner, all presented in a booth at the back of a dimly lit restaurant.

Wait! What?

Yes, indeed, we had dinner with Robert Lefkowitz, a James B. Duke Professor of Medicine at Duke University, Howard Hughes Medical Institute Investigator, and the 2012 Nobel Prize Winner in Chemistry for his work with G-protein-coupled receptors. It almost seems strange to write all of those prestigious titles and accolades as he came across as such a quiet and gracious winner. We started the evening with his earnest advice to all of us: Don't go into science to be a Nobel Prize winner; don't follow science by the techniques you've learned because technical innovations come and go; don't be afraid of failure; and be sure to eat at least a small piece of dark chocolate every day. Perhaps most importantly, he urged each of us to just find what makes us happy both personally and professionally. He cheerfully backed this final sentiment with descriptions of his well loved children, not a single one in science, who were all finding their way in the world with a proud and supportive father.

His stories of winning the prize and the ensuing months of media attention, celebrations, speaker invitations, and the medal ceremony itself were fascinating. For those of you who don't know, the Nobel Prizes are announced on specific days of the week, with the Prize in Physiology or Medicine given on Monday. Although Lefkowitz was, in fact, a very humble man, he had been repeatedly featured in the local papers for several years with the tonguein-cheek lamentations that he had yet to win the most coveted of scientific achievements. So when yet another Monday in early October went by, he didn't think much of it. And then . . . then came a 5:00 AM phone call on a Wednesday, the day for the announcement of the Nobel Prize in Chemistry. His wife answered the phone in surprise, but Lefkowitz knew right away who was on the other end. The worst part for him? He was told that he couldn't tell a soul until about 45 minutes later while the Nobel organization made its media announcements. So Robert Lefkowitz made a pot of coffee and waited and watched the sun come up, thinking in disappointment that he wouldn't be able to tell his kids in person, a small price to pay for someone about to join the ranks of the world's greatest scientists.

What followed was the celebration and acclaim that come from a near lifetime of hard work, dedication, and passion for research-something we all share as physiologists. Few of us will win the Nobel Prize. We won't have dinner with Swedish royalty or get cheered on by thousands as Coach K hands us a custom Duke Blue Devils jersey at center court. Although these experiences were highlights from Lefkowitz's life, he left us with a much richer feeling of what it means to be a scientist. He inspired us to do better, to keep asking questions, to enjoy what we do in the lab. And as we grow older, he urged us not to forget to look back every once in a while, make sure to grab hold of those coming up through the ranks and give them a boost forward. Because, in the end, we're all in this scientific journey together, whether we're Nobel Prize winners or not.

Erica Dale, Chair, Trainee Advisory Committee

Fellows of the American Physiological Society Inaugural Class

The APS is pleased to announce the names of the inaugural class of APS Fellows (FAPS). Fellowship is given to those individuals who have contributed significantly to the Society and to the discipline. Election to APS Fellow status not only acknowledges noteworthy scientific and professional accomplishments, but also outstanding leadership and service to the Society. The designation of Fellow is honorific and shall remain valid for the duration of APS membership.

APS members should consider advancement to Fellow status as a request to become more active in the internal affairs of the Society, including serving in a leadership capacity. To earn FAPS status, candidates must be a REGULAR and/or EMERITUS member for at least 15 continuous years postdoctoral prior to year of nomination. Each application must be accompanied by two written recommendations from current Regular or Emeritus members. When applying for Fellow status, the candidate must demonstrate that they meet four of the following six prerequisites:

- Demonstrated society service
- Independent grant support/funding
- Publications
- Administration
- Public service
- Teaching

Complete information about the prerequisites for membership can be found online at *http://www.the-aps. org/faps*.

The inaugural class did not have to apply for Fellow status. The Council selected the slate from those who

had served APS as Presidents, Councillors, or journal editors. In addition, they elected APS members who were members of the NAS, NAE, and IOM and those who had been Cannon Lecturers. As a result, the Council approved an inaugural class of 151 members, 33 of whom were female (see Table 1). While Council believes those selected for inclusion in the inaugural class are exemplary members of the Society, it recognizes that it does not include all who are worthy of Fellow status. For that reason, the Council strongly urges all who meet the prerequisites to submit an application to become an APS Fellow (FAPS). Your application will be reviewed by a committee comprised of representatives from each APS disciplinary section.



Table 1. Red represents women; blue represents men.

Below are the inaugural class of Fellows.

Fellows of the American Physiological Society

Francois M. Abboud Barbara T. Alexander Robert J. Alpern Kenneth M. Baldwin Susan M. Barman Kim E. Barrett Emile Baulieu Phillip Darwin Bell Vernon S. Bishop Edward H. Blaine Mordecai P. Blaustein Barbara A. Block Floyd E. Bloom Walter F. Boron Ralph L. Brinster David P. Brooks Dennis Brown Maurice B. Burg Kevin P. Campbell Hannah V. Carey Pamela K. Carmines

Fellows of the American Physiological Society, continued

Robert G. Carroll John Charles Chatham Shu Chien William W. Chin Carmine D. Clemente Allen W. Cowley, Jr. Douglas C. Curran-Everett Charles A. Czeisler William H. Dantzler Jerome A. Dempsey Gerald F. DiBona Jeffrey M. Drazen Victor J. Dzau Douglas C. Eaton John H. Exton Robert E. Forster Jeffrey J. Fredberg Apostolos P. Georgopoulos Gerhard H. Giebisch Charles Douglas Gilbert Alfred L. Goldberg Barbara E. Goodman D. Neil Granger Joey P. Granger Andrew Seth Greene Joseph C. Greenfield Sten E. Grillner **Roger Guillemin** David D. Gutterman Francis J Haddy John E. Hall Barbara C. Hansen Penelope A. Hansen David R. Harder Riitta Hari Joseph R. Haywood Robert L. Hester James W. Hicks Joseph F. Hoffman Barbara A. Horwitz Paul A. Insel Leonard S. Jefferson Leonard R. Johnson Paul C. Johnson Irving Gilbert Joshua

H. Ronald Kaback Thomas R. Kleyman Amira Klip Franklyn G. Knox Kevin C. Kregel Diana L. Kunze Lynn T Landmesser Charles H. Lang M. Harold Laughlin Lisa R. Leon Carole M. Liedtke David J. Linden Ida J. Llewellyn-Smith Thomas E. Lohmeier Joseph Loscalzo Pauline Kay Lund Ronald M. Lynch Asrar B. Malik Eve Esther Marder Sadis Matalon Michael A. Matthay Lorne M. Mendell Marilyn P. Merker Virginia M. Miller Gordon S. Mitchell Harold I Modell Patricia E. Molina Marshall H. Montrose Luis Gabriel Navar Jimmy D. Neill Judith A Neubauer Suzanne Oparil Rudy M. Ortiz Charles R. Park Pontus B. Persson Jeffrey E. Pessin Ulrich Pohl David M. Pollock Michael A. Portman Frank L. Powell, Jr. Thomas A Pressley Hershel Raff Marcus E. Raichle Usha Raj David J. Ramsay

Helen E. Raybould Jane F. Reckelhoff Harald Reuter Willis K. Samson Linda C. Samuelson **Jeff M. Sands** James A. Schafer Ann M. Schreihofer Terrence J. Sejnowski Gordon M. Shepherd Gerald I. Shulman Gary C. Sieck Curt Daniel Sigmund Samuel C. Silverstein Dee U. Silverthorn Celia D. Sladek Louis Sokoloff Irene C. Solomon George N. Somero Harvey V. Sparks Peter L. Strick Alan F. Sved William T. Talman Aubrey E. Taylor Charles M. Tipton Richard J. Traystman Heinz Valtin Peter D. Wagner Thomas A Waldmann Michael J. Welsh John B. West John A. Williams Phyllis M. Wise Robert H Wurtz J. Michael Wyss Tadataka Yamada Masashi Yanagisawa Bill J. Yates F. Eugene Yates Irving H. Zucker

S&R Foundation 15th Anniversary

Alexander Staruschenko, Christopher R. Weber, Oleh Pochynyuk, and Declan F. McCole

The S&R Foundation, established by Sachiko Kuno and Ryuji Ueno, celebrated its 15th anniversary on the weekend of July 10-12, in Washington, DC. The mission of the S&R Foundation is to support young talented scientists, artists, and social entrepreneurs. The S&R Foundation sponsors annual award programs, hosts concerts and events, and works with its partners to encourage social, scientific, and artistic innovation, and to promote cultural and personal development.

The S&R Foundation began to support talented scientists in 2002 by establishing the Ueno Award. Several years later, the foundation established its partnership with the American Physiological Society to present the award at annual Experimental Biology meetings. From 2008 until 2014, the Ueno Award (\$30,000) was given annually to an individual demonstrating outstanding promise based on his/her research in ion channels or epithelial barrier function. In 2015, the scientific focus changed, and currently the award supports an early career investigator demonstrating outstanding promise based on his/her research in wound healing, tissue remodeling, and/ or organ regeneration. Relevant projects can include a range of topics in fundamental research, ranging from exploring the cellular and molecular physiology of these processes to the impact on organism physiology. Applications are accepted from APS members who hold an academic rank of assistant professor or higher, and the deadline for next round is November 13, 2015 (through the APS Awards website).

Approximately 20 S&R Foundation Awardees and Halcyon Incubator fellows were able to come to DC to the 15th Anniversary Alumni gathering, including 4 Ueno Awardees: Alexander Staruschenko (Medical College of Wisconsin), Christopher R. Weber (The University of Chicago), Oleh Pochynyuk (University of Texas Health Science Center, Houston), and Declan McCole (University of California, Riverside), who were recipients of the Ueno Award in 2010, 2012, 2013, and 2014, respectively. The extensive program started on Friday morning with the first of a series of community outreach events where McCole and Weber performed a workshop at the Dunbar Alexandria-Olympic Boys and Girls Club, showing children the basics of working with microscopes. The children (from ages 5 to 13) were then able to draw their impressions of gastrointestinal biopsy slides, provided by Christopher Weber, and demonstrated a real talent for histology (see Figures 1 and 2 showing McCole and Weber teaching the Boys and Girls Club children how to operate the microscopes). The microscopes were purchased by the S&R Foundation and were generously donated to the Club after the class. Following the scientific presentations, the Washington Awards alumni performed for kids at the Jelleff Boys and Girls Club. Additional performances on Friday night at the prestigious Kennedy Center for the Performing Arts featured Washington awardees Tim Park (Cello, 2013), Tanya Gabrielian (Piano, 2013), and Junichi Fukuda (Dancer, 2012) in a concert that was free to the public. The alumni then gathered for an informal get-together at the storied Halcyon House, which was built in 1787 by the first Secretary of the U.S. Navy, Benjamin Stoddert, and is listed on the National Register of Historic Places. Halcyon House is home to the S&R Foundation Social Entrepreneurship Incubator.



Figure 1. Declan McCole teaching the Boys & Girls Club children how to operate the microscopes



Figure 2. Christopher Weber teaching the Boys & Girls Club children how to operate the microscopes

On Saturday, the alumni spent the day at the recently acquired Fillmore School (former Fillmore Arts Center, which was a part of the Corcoran Gallery of Art). This is a new project of the S&R Foundation where Sachiko Kuno and Ryuji Ueno plan to establish a new center to promote the future success of young talented individuals with an emphasis on the Arts. The afternoon discussions focused on the future plans for the Fillmore School. The alumni were divided into small groups, which included 1 scientist, 1-2 artists, and 1-2 social entrepreneurs. A number of important questions relevant to this



Figure 3. From *left* to *right*: Declan McCole, Alexander Staruschenko, Oleh Pochynyuk, Ryuji Ueno, Christopher R. Weber, Akira Sawa, Sachiko Kuno, and Martin Frank (photograph is courtesy of Pat Ryan)

program were discussed, including topics such as the goals, potential outcomes, and types of participant of the Fillmore School program. At the end of exciting and innovative discussions that were stimulated by the disparate backgrounds of the participants, all groups presented their visions of the future Fillmore School. Sachiko Kuno, Ryuji Ueno, and Kate Goodall, COO of the S&R Foundation, also participated actively in the discussion.

The alumni program concluded with a cocktail party held at Evermay, an impressive historic mansion in the heart of Georgetown. Evermay serves as the headquarters for the S&R Foundation, and most of alumni actually stayed in this beautiful house during this event (the rest

were accommodated at Halcyon House). In addition to alumni, approximately 80 guests of the foundation attended the cocktail party and gala concert presented by two artists in residence of S&R, Washington Awardee Ryo Yanagitani and overture artist Machiko Ozawa. Akira Sawa, Professor and Director of Johns Hopkins Schizophrenia Center, who was the first Ueno award recipient (2002), was also able to join the event. Shown in Figure 3 are Sachiko Kuno and Ryuji Ueno and the Ueno Awardees, along with APS Executive Director Martin Frank.

It was an exciting and memorable gathering of alumni of the S&R Foundation, and we all hope that this will become a lasting tradition. We would like to thank Sachiko Kuno and Ryuji Ueno and all the staff of the S&R Foundation for a wonderful experience with talented individuals across several different fields of endeavor. We are also extremely grateful to the S&R Foundation for their ongoing and generous support of the American Physiological Society. ●

APS and TPS Leadership Meet in Cardiff

For a number of years, the American Physiological Society (APS) and The Physiological Society (TPS) have met to discuss areas of common interest and to identify ways in which the two societies can work together to advance the discipline of physiology. The APS leadership meets with the TPS leadership at their annual meeting during odd years, and the TPS leadership meets with APS in even years. As a result of those discussions, our societies offer symposia at the other's annual meeting, *Physiological Reports* was launched, and planning for the joint APS-TPS meeting in Dublin was initiated.

The TPS leadership played host to APS leadership at Physiology 2015 in Cardiff. Patricia Molina, Jane Reckelhoff, and Martin Frank met with the TPS leadership. Topics discussed included Physiological Reports, the joint meeting in Dublin, as well as the joint international meeting scheduled for September 2016 in Beijing. The APS and TPS leadership also shared their concerns about IUPS and the need for IUPS to revise its dues structure and governance model. Both societies have representatives on committees considering both issues. The upcoming plans for the 2017 IUPS Congress in Rio de Janeiro, Brazil were also discussed. The societies also discussed how to work together to enhance physiology in developing countries. APS provided information about its International Opportunities Program as well as its visit to Cuba. TPS announced that it had joined the Life Sciences TRC (*http://www.lifescitrc*. org/), an online community for life science educators managed by APS. Blair Grubb indicated that he was meeting with Mike Wyss and Marsha Matyas to discuss other opportunities for collaboration, including PhUn Week and the TPS MOOC. TPS inquired about the new APS Fellows Program, and Patricia Molina provided background on the program. TPS is considering the possibility of creating a comparable program. Richard Vaughn-Jones provided an update on the TPS study to assess the state of physiology in the UK. The final report will be available later this year and will be shared with the community. Patricia Molina informed TPS that the APS was planning to undertake a repositioning study, which would benefit from the results of the TPS study.

It was agreed by both societies that these annual discussions were productive and that plans should be made to meet again in San Diego in 2016.



From *left* to *right*: Martin Frank, Patricia Molina, Richard Vaughn-Jones, Philip Wright



Education

Jennifer Pollock Receives Schmidt-Nielsen Distinguished Mentor and Scientist Award at EB 2015



Jennifer Pollock delivering her Schmidt-Nielsen Award Lecture during EB 2015.

The APS Women in Physiology Committee hosted a lecture and reception at Experimental Biology 2015 to honor Jennifer S. Pollock, University of Alabama at Birmingham (UAB), who was selected as the 12th recipient of the Bodil M. Schmidt-Nielsen Distinguished Mentor and Scientist Award.

Over 90 colleagues, trainees, and EB awardees gathered to celebrate and hear Pollock's award lecture entitled,

"Mentoring: Being in the 'NO'." The talk will be published in a future issue of *The Physiologist* and has been posted on the awardee webpage (*http://bit.ly/1BiJGiQ*). Jennifer Sasser (University of Mississippi Medical Center) and Jennifer Sullivan (Georgia Regents University), who both coordinated the nomination of Pollock for the award, were present to introduce her. Caroline Rickards, Chair of the Women in Physiology Committee, gave the award presentation introduction, and Kim Barrett, Past-President of the APS and the 2012 award recipient, gave the award to Pollock.

Jennifer S. Pollock is a Professor of Medicine in the Division of Nephrology, Professor and Co-Director of Cardio-Renal Physiology and Medicine, and Associate Director of the Center for Free Radical Biology at UAB. She was recruited to UAB in 2014 after working as a Senior Research Scientist at Abbott Laboratories and rising through the ranks from Assistant Professor to Weiss Professor at the Medical College of Georgia at Georgia Regents University.

Pollock is an outstanding teacher and mentor. As a testament to her work in the classroom, she has received Outstanding Faculty awards and Distinguished Teacher awards. Throughout her career, she has mentored approximately 100 students and fellows, as well as several junior faculty members. She is well recognized for her enthusiasm for science and for training the

next generation of leaders in academia, medicine, and industry. As many of her former trainees noted in the nomination package, she leads first by example– managing both a successful career and the needs of her family and trainees.

Pollock also has a very productive research program that focuses on the regulation of nitric oxide in the kidney and the vasculature, especially as it relates to the pathogenesis of hypertension, diabetes, and the early life origins of cardio-renal dysfunction. The principal objective of her research program is to elucidate the biochemical, physiological, and pathophysiological roles of nitric oxide in mammalian cell function.

APS members are encouraged to nominate members for the 2016 Bodil Schmidt-Nielsen Award. For more information, see the APS website (*www.the-aps.org*/ *schmidtnielsen*) or contact Brooke Bruthers, APS Senior Program Manager, Diversity Programs at *education@theaps.org*. The application deadline is September 15, 2015; please note the new nomination requirements on the website. ●



Kim Barret, Past-President APS, congratulating Jennifer Pollock, 2015 Schmidt-Nielsen Awardee.

Day Receives ADInstruments Macknight Early Career Innovative Educator Award



Trevor Day, Mount Royal University, 2015 ADInstruments Macknight Early Career Innovative Educator Awardee

Trevor Day, from the Department of Biology at Mount University Roval (Calgary, AL, Canada), received the fifth annual ADInstruments Macknight Early Career Innovative Educator Award. Day was selected based on the laboratory activity he developed entitled "The Building and Utility of an Integrated Tilt Table-Lower Body Negative Pressure Box for Undergraduate Laboratory Projects" to use in conjunction with his General Physiology class.

This award honors an early career APS member who demonstrates the greatest potential for incorporating innovative teaching techniques and effectively utilizing technology resources in engaging undergraduate students in physiology education. It is sponsored by ADInstruments in honor of its co-founder, Tony Macknight.

The APS Education Committee chaired by J. Michael Wyss (University of Alabama at Birmingham) selected Day from the pool of applicants. He was chosen based on a 2- to 3-page description of a laboratory experiment or activity that exemplifies innovative use of technology in physiology education, an explanation of how this activity/technique can be integrated in the curriculum to best benefit students, a CV, and a letter of recommendation from his department chair or administrator.

Day received a \$1,500 Travel Award to attend Experimental Biology, a certificate of recognition, and an institutional grant providing Mount Royal University with a PowerLab PTB 4152 LabTutor Physiology Teaching Bundle or its equivalent.

Day received the ADInstruments Macknight Early Career Innovative Educator Award at the Experimental Biology meeting. ●

Inspire the Next Generation of Physiologists Physiology Understanding Week (PhUn Week) is November 2-6, 2015



Start Planning your Event Now! Deadline: October 1st

- The theme for PhUn Week is Exercise & Health.
- APS provides resources to support and plan your event.
- APS Members and teachers partner NOW for preliminary planning as the school year begins!
- Online submission request form for PhUn Week Event planners is now open.



Schiller Receives Dale J. Benos Early Career Professional Service Award



Alicia Schiller, Univ. of Nebraska Medical Center, 2015 Dale J. Benos Early Career Professional Service Awardee

Alicia Schiller, PhD candidate in the Department of Cellular and Integrative Physiology, University of Nebraska Medical Center, was selected as the 2015 Dale J. Benos Early Career Professional Service Awardee. Schiller was selected based on her teaching, outreach, and support of the professional community, even though she is a graduate student and early in her career. She has won many awards for her research and an award for her outreach as well.

Teaching. Schiller has taught

anatomy and physiology to undergraduates since 2004. That led to her being appointed as an adjunct faculty member at Metropolitan Community College in Omaha in 2005, a position she still holds. In 2012, she became involved with the High School Alliance Program at UNMC, where she designs and teaches a lecture and laboratory course curriculum for high school students. In addition, she is a tutor and recitation leader for the graduate physiology program at UNMC.

Outreach. Schiller's outreach activities include being a co-organizer of the High School Alliance Program curriculum (partially supported by diversity funds from the University). She has been instrumental in incorporating APS PhUn Week activities into the program. Through this program, she has mentored multiple students and introduced them to physiology in a laboratory setting for several months.

Additionally, she co-organized the incorporation of PhUn Week activities into the Nebraska Science Festival for several years. This large event enables potentially thousands of children and their parents to be engaged in physiology education every year. Because of her outreach efforts, Schiller received a Chapter Activity Grant from the APS to continue her efforts for K-12 children. **Professional service.** Schiller currently serves as a trainee member of the APS Science Policy Committee. In this role, she has had many opportunities to speak to congressional representatives in Washington, DC. She also serves as the elected student councilor member of the Nebraska Physiological Society (NPS). During their annual meeting, she gave an oral presentation about science policy and led a roundtable discussion. She has participated in APS activities at the Experimental Biology meeting through being both a judge in the Bruce Undergraduate Awards Competition and a tour guide for the high school student and teacher program.

At UNMC, Schiller is very active in the student and graduate community. She has served on the UNMC student government for several years and is currently the elected vice president of the entire student body. This position allows her to interact with faculty, including the chancellor / vice chancellors of the university, which gives her a unique opportunity to discuss issues that potentially affect research efforts on the UNMC campus and advocate for solutions of issues specific to graduate students. Her most recent accomplishment was establishing a credit-bearing certificate program for graduate students designed to increase transferable skills. She is also chair of the Issues Committee of the Student Senate, cochair of the Student Health Committee, and serves on the Graduate Studies Alumni Chapter, the e-Learning Stering Committee, the iExcel Guiding Coalition, and the iExcel Research Opportunities subcommittee. In 2014, she was the committee organizer for UNMC's LCME Accreditation Team. As mentioned above, she also works as a tutor, teaches recitation sessions, and lectures for graduate-level physiology courses.

Schiller accepted the 2015 Dale J. Benos Early Career Professional Service Award at the Experimental Biology meeting. ●

2015 APS Minority Travel Fellows Attend Experimental Biology in Boston



Minority Travel Fellow Luncheon Keynote Speaker Malcolm Jackson

The APS regularly awards Travel Fellowships for underrepresented minority physiologists to attend APS scientific meetings with funds provided by APS. These Fellowships provide funds for reimbursement of registration, transportation, meals, and lodging expenses for travel to a meeting location. Twenty-nine Fellows attended the APS's annual Experimental Biology (EB) 2015 meeting in Boston.

Fellows in the Minority Travel program not only received travel expense reimbursement to attend these meetings but were also provided professional guidance through pairings with APS members who served as "meeting mentors" to the Fellows for the duration of the conference. Thanks to the time and expertise offered by mentor volunteers, Fellows were able to expand their network of professional colleagues.

During EB, several events were offered as part of the Minority Travel program including an orientation and reception on Saturday afternoon, a networking breakfast on Monday, and a luncheon on Wednesday. All events were very well attended by Fellows, meeting mentors, Porter Physiology Development and Minority Affairs Committee members, members of the APS leadership including APS President David Pollock, APS President-Elect Patricia Molina, Past-President Kim Barrett, and Executive Director Marty Frank. During the networking breakfast on Monday, students and meeting mentors had the opportunity to interact with one another again to exchange contact information, provide career-related answers or advice, and introduce students to other possible mentors in their particular research areas and/ or geographical areas. This year, the early morning networking breakfast program included the roundtable discussion topics and discussion leaders listed in Table 1.

Travel Fellows were also given handouts on each topic provided by the APS LifeSciTRC, formerly known as the APS Archive of Teaching Resources. The breakfast was very well attended and productive.

The Wednesday luncheon consistently provides another opportunity for students and mentors to solidify their interaction and discuss or clarify concepts learned and acquired during the meeting. The highlight of the

Торіс	Leader
Perfecting your CV	Eric Lazartigues, Louisiana State Univ. Health Science Center
Finding grant opportunities	Aaron J. Polichnowski, Hines VA Hospital
Interviewing skills	Keisa W. Mathis, Univ. North Texas Health Science Center
Tips on writing an defending a dissertation	Dexter Lee, Howard Univ.
Mentor selection	Rudy M. Ortiz, Univ. of California, Merced
Networking	Jessica M. Ibarra, Univ. of the Incarnate Word
Graduate school vs. medical school	Rolando J. J. Ramirez, Univ. of Akron
Choosing a graduate or medical school	Rayna J. Gonzales, Univ. of Arizona College of Medicine
Talking to a clinical researcher	Carmen Hinojosa-Laborde, U.S. Army Institute of Surgical Research
How to advance and tackle tenure track	Irving Joshua, Univ. of Louisville
How not to become stagnant in your postdoc	Heidy L. Contreras, Univ. of La Verne



Travel Fellows at the EB 2015 Minority Travel Fellows Luncheon

luncheon was the keynote address given by Malcolm Jackson, University of Liverpool Institute of Ageing and Chronic Disease & MRC-Arthritis Research UK Centre for Integrated Research into Musculoskeletal Ageing (CIMA). Jackson's talk, "Success as a U.S. Graduate Student, Postdoctoral Fellow or Junior Faculty in Europe–What is the Head of a Department Looking for in You?" explained the UK university system, funding mechanisms, job and career structure, and how U.S. students could transition into the UK system. Jackson's presentation is available online at *http://bit.ly/1MuOvr8*.

The APS' Minority Travel Fellowship Awards are open to graduate students, postdoctoral students, and early career faculty (within 5 years of earning a PhD) from groups underrepresented in science (i.e., underrepresented racial/ethnic minorities and persons with disabilities). Applicants must be attending U.S. Institutions and conducting research within the 50 states and U.S. Territories. The specific intent of this award is to increase participation of underrepresented pre- and postdoctoral students in the physiological sciences. For more information, contact Brooke Bruthers in the APS Education Office at 301-634-7132 or *education@the-aps.org*, or visit *www.the-aps.org/minoritytravel*. ●

APS Travel Fellows and Meeting Mentors at Experimental Biology 2015

Travel Fellow & Abstract Title	Meeting Mentor
Shaquria Adderley – University of South Florida Histamine-induced endothelial barrier dysfunction requires p38 MAPK- mediated actin cytoskeleton reorganization	Utpal Sen, University of Louisville School of Medicine
Nicholas Aguirre* – University of California, Davis Delayed activation of muscle protein synthesis following resistance exercise in mice is mTORC1-dependent	Chuck Lang, Pennsylvania State University
Elinette Albino* – Ponce Health Sciences University Decidual macrophages as an ex-vivo model to study active HIV-1 viral reservoir	Kedra Wallace, Vanderbilt University
Joshua Avila – Ponce Health Sciences University Strain-dependent metabolic phenotype responses to various exercise paradigms in inbred mice	Kathy Ryan, U.S. Army Institute of Surgical Research
Diana Borgas – Providence VA Medical Center Histone deacetylase 6 mediates cigarette smoke-induced increase in lung endothelial permeability and susceptibility to acute lung injury	S. Vamsee Raju, University of Alabama at Birmingham
Isola Brown – Michigan State University Activation of enteric glia contributes to enteric neuron death in inflammation	Gary Mawe, University of Vermont
Lemuel Brown – University of Arkansas Progression of cancer cachexia alters muscle lactate metabolism in ApcMin/+ mice	Min Du, Washington State University
Kristine DeLeon-Pennell* – University of Mississippi Medical Center Evidence that vascular endothelial derived endothelin-1 promotes development of tunicamycin induced endoplasmic reticulum stress in renal vessels	Flavia Souza, Louisiana State University Health Sciences Center
Carmen De Miguel – University of Alabama at Birmingham Macrophage activation by chronic P. gingivalis endotoxin attenuates fibroblast matrix deposition post-myocardial infarction	Janie Reckelhoff, University of Mississippi Medical Center
Kaylin Didier – University of Oklahoma Effects of chemotherapy and radiation exposure on brachial artery blood flow during dynamic handgrip exercise	Ryan Harris, Georgia Regents University

Travel Fellow & Abstract Title	Meeting Mentor
Kwame Doh – Georgetown University Effects of fructose feeding on mice with dual knockout of the insulin and insulin- like-growth factor, type 1 (IGF1) receptors from proximal-tubule	Cynthia Arbeeny, Sanofi Genzyme R&D Center
Jada Domingue – University of Illinois at Chicago Bile acid (BA) stimulation of Cl secretion involves intricate crosstalk cascades in human colonic T84 cells	Marshall H. Montrose, University of Cincinnati
Daryl Fields – University of Wisconsin 5HT7 receptor induced phrenic motor facilitation requires EPAC and mTORC1, but not PKA activity	Jason Yuan, University of Arizona Health Sciences Center
Victor Garcia – New York Medical College 20-SOLA, a novel water soluble 20-HETE antagonist, reduces blood pressure through regulation of vascular ACE expression via an IKK dependent pathway	Pedro A. Jose, University of Maryland School of Medicine
Albert Gonzales – University of Vermont Ca ²⁺ dynamics and contraction of junctional pericytes in the retinal vasculature	David Auerbach, University of Rochester Medical Center
Antentor Hinton, Jr. – Baylor College of Medicine Estrogen responsive neurons in the medial amygdala prevent stress-induced hypertension	Annie Whitaker, Louisiana State University Health Sciences Center
Stella-Rita Ibeawuchi – University of Iowa Naturally occurring Cullin3 mutations decrease RhoA ubiquitination and sequester substrate adaptors	Zissis C. Chroneos, Pennsylvania State University College of Medicine
Raymond Isidro Vega – Ponce Health Sciences University Adoptive transfer of dendritic cells overexpressing FasL (FasL-DCs) decreases the proinflammatory phenotype of macrophages in a model of acute colitis	Jessica M. Ibarra, University of the Incarnate Word
Jermaine Johnston – University of Alabama at Birmingham Sex differences in the diurnal natriuretic response to a salt load in rats lacking a functional ETB receptor	James McCormick, Oregon Health and Science University
Ernesto Lopez – University of Texas Medical Branch Arginine vasopressin receptor 2 (V2R) activation disrupts endothelial barrier and promotes vascular hyperpermeability	J. Paula Warrington, University of Mississippi Medical Center
Anberitha Matthews – Mississippi State University Enhanced oxidative stress modulates endocannabinoid tone	Adebowale Adebiyi, University of Tennessee Health Science Center
Heidi Medford – Washington State University Knockdown of the 110-kDa subunit of OGT dysregulates cardiac remodeling in response to pressure overload	Mahesh Gupta, University of Chicago
Michael Oxendine – Saint Louis University Cardiac pH regulation and buffering of the western painted turtle (Chrysemys picta belli)	Lynn Hartzler, Wright State University
Paulo Pires – University of Nevada School of Medicine The angiotensin II type-1 receptor is a mechanosensor in cerebral parenchymal arteriole smooth muscle cells	Eric Thorin, University of Montreal
Vanitra Richardson – University of California Los Angeles The role of sarcospan in cardiac sarcolemma organization and function	Alice Zemljic-Harpf, University of California, San Diego
Grace Santa Cruz Chavez – Indiana University – Purdue University Indianapolis Aortic depressor response is blunted following ovariectomy: evidence for involvement of central but not peripheral afferent pathways in rat	Scott Edwards, Louisiana State University Health Sciences Center
Joshua Sheak – University of New Mexico Differential effects of chronic hypoxia on basal and agonist-induced NO- dependent pulmonary vasodilation in neonatal rats	Dolly Mehta, University of Illinois at Chicago
Jeremy Townsend – University of Central Florida Immunohistological and morphological analysis from a skeletal muscle microbiopsy	Brandon Macias, University of California, San Diego
Annie Whitaker – Louisiana State University Health Science Center Stress-induced neuroadaptations in the paraventricular hypothalamic nucleus of animals that exhibit persistent avoidance	Meeting Mentor to Antentor Hinton, Jr.

Graduate Students and Postdoctoral Fellows Receive tum Suden/Hellebrandt Professional Opportunity Awards



2015 tum Suden, Strand and Horvath Awardees at EB 2015 with Caroline Rickards, Chair, WIPC

Graduate students and postdoctoral fellows who were first authors on an abstract submitted to Experimental Biology 2015 were eligible to apply for the Caroline tum Suden/Frances A. Hellebrandt Professional Opportunity Awards. A fund established to honor the memory of Steven M. Horvath and Fleur L. Strand, distinguished APS members, to provide support for the top two underrepresented minority awardees and top ranked awardee, respectively. Two additional awards named after Gabor Kaley, were also presented this year.

The APS Women in Physiology Committee chaired by Caroline Rickards, University of North Texas Health Sciences Center, selected 51 awardees from a pool of 125 applicants. Applicants were required to be APS members (either student or regular) at the time of application and could not have won the award previously as a graduate student (if currently a graduate student) or as a postdoctoral fellow (if currently a postdoctoral fellow). Applicants were chosen based on the quality and novelty of their abstracts, and letters written by the candidates describing their career goals, research, and why they were particularly deserving of the award. Each awardee received \$500, a certificate of recognition, and complimentary advanced registration for the EB 2015 meeting; the Fleur Strand Awardee receives \$1,000.

The following tables list the award recipients who were presented during the APS Business Meeting.

2015 Caroline tum Suden Professional Opportunity Award Recipients

Last Name	First Name	Institution	
Aguirre	Nicholas	University of California, Davis	
Aihara	Eitaro	University of Cincinnati	
Amaral	Lorena	University of Mississippi Medical Center	
Becker	Bryan	University of Nebraska Medical Center	
Craighead	Daniel	The Pennsylvania State University	
Crislip	Gene	Georgia Regents University	
DuPont	Jennifer	Tufts Medical Center	
Fonkoue	Ida	Michigan Technological University	
Fox	Brandon	University of Alabama at Birmingham	
Gao	Juan	Louisiana State University Health Sciences Center	
Hearon Jr.	Christopher	Colorado State University	
Holwerda	Seth	University of Missouri	
Hughes	William	University of Iowa	
Huynh	Kevin	University of California San Diego	
Intapad	Suttira	University of Mississippi Medical Center	
Johnston	Jermaine	University of Alabama at Birmingham	
Jouett	Noah	University of North Texas Health Science Center	
Junejo	Rehan	University of Birmingham	
Kelly	Kevin	Michigan State University	
Kuo	Ivana	Yale University	
Li	Wencheng	Colorado State University	
Martinez	Bridget	University of California Merced	
McPherson	Kasi	University of Mississippi Medical Center	
Mittwede	Peter	University of Mississippi Medical Center	
Monzon	Casandra	Case Western Reserve University	
Mouton	Alan	Louisiana State University Health Sciences Center	
Noblet	Jillian	Indiana University School of Medicine	
Obi	ljeoma	University of Alabama, Birmingham	
Olson	Jessica	Medical College of Wisconsin	
Ostrowski	Tim	University of Missouri	

Last Name	First Name	Institution
Rajagopalan	Viswanathan	New York Institute of Technology College of Osteopathic Medicine
Rajkumar	Premraj	Johns Hopkins School of Medicine
Ranadive	Sushant	Mayo Clinic
Receno	Candace	Syracuse University
Saleem	Ayesha	McMaster University
Schumacher	Michael	Children's Hospital Los Angeles
Sedaka	Randee	University of Alabama at Birmingham
Shi	Zhigang	Oregon Health & Science University
Sprick	Justin	University of North Texas Health Science Center
Sriramula	Srinivas	Louisiana State University Health Sciences Center
Stanhewicz	Anna	The Pennsylvania State University
Strey (Streeter)	Kristi	University of Florida
Wang	Zhen	University of Mississippi Medical Center
Wilson (Lewis)	Kristin	Ohio State University
Wolff	Christopher	Colorado State University
Zhang	Xun	University of South Florida

2015 Steven M. Horvath Professional **Opportunity Award Recipients**

Last Name	First Name	Institution
Isidro Vega	Raymond	Ponce School of Medicine and Health Sciences
Santisteban	Monica	University of Florida

2015 Fleur B. Strand Professional **Opportunity Award Recipient**

Last Name	First Name	Institution
Spradley	Frank	University of Mississippi Medical Center

2015 Gabor Kaley Professional Opportunity Award Recipients

Last Name	First Name	Institution
Kole	Ayeeshik	Indiana University School of Medicine
Lutkewitte	Andrew	Indiana University School of Medicine

Please see the Business Meeting minutes section of this issue for photographs of the Strand and Horvath awardees.

For information about applying for the 2016 Caroline tum Suden/Frances Hellebrandt Professional Opportunity visit http://www.the-aps.org/tumsudenstudent Awards, (graduate student applicants), http://www.the-aps.org/ tumsudenpostdoc (postdoctoral fellow applicants); or contact Brooke Bruthers, APS Senior Program Manager, Diversity Programs at education@the-aps.org. The application deadline for the 2016 awards is November 5, 2015 (https://www.the-aps.org/awardapps).

Awards, Grants, and Fellowships of the APS

- ✓ Student/Trainee Awards ✓ Society Awards
- ✓ Section Awards
- ✓ Teacher Awards

For more information, please visit the-aps.org/awards

MD or DO Students Receive Third Excellence in Professional Student Research Travel Awards



2015 Excellence in Professional Student Research Travel Awardees with President-Elect Patricia Molina

MD or DO students who were first authors on an abstract submitted to Experimental Biology 2015 in Boston were eligible to apply for the Excellence in Professional Student Research Travel Awards.

The APS Career Opportunities in Physiology Committee chaired by Kathy Ryan, from U.S. Army Institute of Surgical Research, selected nine awardees from the applicants. Awardees were chosen based on the quality of their abstract; a one-page letter discussing their role in the research, the significance of the research, and their career plans; and a recommendation letter from their research advisor.

The awardees received a certificate of recognition, a \$1,800 travel allowance, and complimentary advanced registration for the EB 2015 meeting. They also received a meeting mentor who was a professional in their field of research for the EB meeting.

Students received their awards and met with their meeting mentors at an orientation session at EB. Career Opportunities in Physiology Committee Chair Ryan and member Eileen Chang (Univ. of Florida) spoke to the students about APS, translational research opportunities, and navigating the EB meeting. In addition, President-Elect Patricia Molina spoke to the students about her career path as an MD doing biomedical research.

The 2015 Excellence in Professional Student Research Travel Awardees are listed in the table below. ●

Student	Meeting Mentor
Brown, Andrew	Jeff Sands, Emory Univ.
Univ. of Mississippi Med. Coll.	Sch. Med.
Catanzaro, Michael New York Inst. of Technology – Coll. Osteopathic Med.	Monte Willis, Univ. of North Carolina at Chapel Hill
Ebeledike, Chiemelie	Nuria Pastor-Soler, Univ.
Georgia Regents Univ.	of Pittsburgh
Kerby, Jenna Marshall Univ. Joan C. Edwards Sch. Med.	James Bassingthwaighte, Univ. of Washington
Kuijpers, Myrthe	Lusha Xiang, Univ. of
Mayo Clinic	Mississippi Med.Ctr.
Pham, Grace	Ivo P. Torres Filho, US Army
Univ. of North Texas Hlth. Sci. Ctr.	Inst. Surgical Res.
Seitter, Samantha New York Inst. of Technology – Coll. Osteopathic Med.	Rolando E. Rumbaut, Baylor Coll. of Med.
Snyder, Alex	Qi Fu, Univ. of Texas
Univ. of California San Diego	Southwestern Med. Ctr.
Veldhoven, Lisa	Pedro A. Jose, Univ. of
Radboud Univ. Med. Ctr.	Maryland

Novel Disease Model Awards Granted to Graduate Student and Postdoctoral Fellow

Predoctoral students and postdoctoral fellows who were first authors on an abstract submitted to Experimental Biology 2015 in Boston were eligible to apply for the Novel Disease Model Awards.

The APS Physiologists in Industry Committee is chaired by Eugene Shek, from Beijing Novo Nordisk Pharmaceuticals Science and Technology Co., Ltd. The awardee selection was made by the Committee under the leadership of Gerald M. Herrera, Catamount Research



Casey Y. Carmichael, Boston University School of Medicine, 2015 Novel Disease Model Predoctoral Awardee



Denise C. Cornelius, Univ. of Mississippi Medical Center, 2015 Novel Disease Model Postdoctoral Awardee

and Development. They selected a predoctoral and a postdoctoral awardee from the applicants. Awardees were chosen based on the novelty of the model and the potential utility of the system for future research related to a disease process.

The predoctoral awardee received \$500, a certificate of recognition, and complimentary advanced registration for the EB 2015 meeting. The postdoctoral awardee received \$800, a certificate of recognition, and complimentary advanced registration for the EB 2015 meeting. Beginning in 2014, the Novel Disease Model Awards are sponsored by Novo-Nordisk.

The Predoctoral Awardee was Casey Y. Carmichael, Boston University School of Medicine, for her abstract entitled "The Renal Afferent Nerves: A Role in Countering Salt-sensitive Hypertension?"

The Postdoctoral Awardee was Denise C. Cornelius, University of Mississippi Medical Center, for her abstract entitled "Placental Ischemia-Induced TH17 Cells Mediate the Pathophysiology Associated with Preeclampsia."

Awards were presented at EB during the APS Business Meeting. APS congratulates these awardees. ●



Undergraduate Summer Research Fellows Attend EB

The 2014 Fellows from four of APS' undergraduate summer research programs attended the 2015 Experimental Biology meeting held in Boston to report on their research findings from last summer.

Four of the seven Integrative Organismal Systems Physiology (IOSP) Fellows attended the EB meeting. Of those, three submitted a first-author abstract to the meeting. One additional Fellow who could not attend submitted a first-author abstract.

Thirteen of the 14 Short-Term Research Education Program to Increase Diversity in Health-Related Research (STRIDE) Fellows, attended the EB meeting. Of



2014 IOSP Fellows (others not pictured). For a complete list of the 2014 Fellows and their Research Hosts, refer to the Past Awardees list under Resources at http://www.the-aps.org/mm/Education/Minority-Program/Educational-Projects/IOSP/Awardees



2014 STRIDE Fellows (others not pictured) . For a complete list of the 2014 Fellows and their Research Hosts, refer to the Past Awardees list under Resources at http://www.the-aps.org/mm/Education/Minority-Program/Educational-Projects/STRIDE/Awardees

those attending, all submitted an abstract, 12 of which were first-author abstracts.

Twenty-three of the 24 Undergraduate Summer Research Fellows (UGSRFs) attended the meeting. Twenty of the UGSRFs were first authors on abstracts submitted to the meeting.

All of the six Undergraduate Research Excellence Fellows (UGREFs) attended the meeting and submitted first-author abstracts.

David Pollock, APS President; Kim E. Barrett, APS Past-President, and Patricia Molina, APS Presidentelect, congratulated the Fellows on their scientific research efforts and presented them with certificates for completing their fellowship during the orientation session on Saturday afternoon.

All undergraduates in physiology who had first-author abstracts were invited to a special Undergraduate Orientation Session. The Fellows were joined by the David S. Bruce Outstanding Undergraduate Abstract Awardees, in addition to approximately 30 other undergraduates for the session. Kathy Ryan, Chair of the Career Opportunities in Physiology Committee, welcomed the undergraduates and introduced the Fellows from all of the programs. Erica Dale, Chair of the Trainee Advisory Committee, gave a presentation on attending a scientific meeting and how to get the most

> out of being there, both in terms of science and career talks, as well as social activities. Carissa Krane, member of the Education Committee, introduced the Bruce Abstract Awardees and reminded the undergraduates about the special Undergraduate Poster Session on Sunday. Members of the Career Opportunities in Physiology, Trainee Advisory, and Education Committees attended the session and talked after the formal presentations about their own careers with interested undergraduates.


2014 UGSRFs (others not pictured). For a complete list of the 2014 Fellows and their Research Hosts, refer to the Past Awardees list under Resources at http://www.the-aps.org/mm/Education/Undergraduate/Educational-Projects/UGSRFs/Awardees

On Sunday, the Fellows participated in the APS Undergraduate Poster Session and presented their posters to APS members, in addition to their regularly scheduled scientific session.

On Monday morning, the IOSP and STRIDE Fellows attended the Minority Travel Fellow Networking Breakfast to meet graduate students, postdoctoral fellows, and early career faculty from diverse backgrounds, as well as members of the Porter Physiology Development and Minority Affairs Committee. Networking tables with topics such as "choosing a graduate school or medical school," "networking," and "mentor selection" were organized to facilitate these roundtable-style networking discussions.

Overall, the Fellows saw the EB meeting as being a very positive learning experience and appreciated the opportunity to come and present their research.

The IOSP undergraduate summer program is supported by APS and NSF Grant IOS-1238831. The STRIDE undergraduate program is supported by APS and NIH NHLBI Grant 1R25 HL-115473-01. The UGSRF and UGREF programs are supported by APS.



2014 UGREF Fellows. For a complete list of the 2014 Fellows and their Research Hosts, refer to the Past Awardees list under Resources at http://www.the-aps.org/mm/Education/Undergraduate/Educational-Projects/Undergraduate-Research-Excellence-Fellowships/Awardees

For more information about these programs, contact Melinda Lowy, Senior Program Manager, Higher Education Programs, or Brooke Bruthers, Senior Program Manager, Diversity Programs, at *education@the-aps.org*.

Undergraduate Students Receive David S. Bruce Awards for Excellence in Undergraduate Research

Undergraduate students who were first authors on an abstract submitted to Experimental Biology 2015 in Boston were eligible to apply for the David S. Bruce Awards. The Bruce Awards include two awards: the Outstanding Undergraduate Abstract Awards and the Excellence in Undergraduate Research Awards.

The APS Education Committee, chaired by J. Michael Wyss, University of Alabama at Birmingham, selected

30 Outstanding Undergraduate Abstract Awardees from a pool of 87 applicants. Awardees were chosen based on the quality and novelty of their abstracts and letters written by the candidates describing their career goals, research, and why they were particularly deserving of the award. The 30 Outstanding Abstract Awardees are listed in the table below.

Outstanding Abstract Awardee	Institution	Laboratory of
Jenae Brown	Alma College	Esther E. Dupont-Versteegden, Univ. of Kentucky
Mark T. Cadena	Univ. of Wisconsin - Madison	Michelle E. Kimple, Univ. of Wisconsin-Madison
Akhil Chandra	George Washington Univ.	Nikki Gillum Posnack, George Washington Univ.
Daniel P. Chantigian	Mayo Clinic	Michael J. Joyner, Mayo Clinic
Andrielle Cowl	Univ. of Minnesota	Thomas Olson, Mayo Clinic
Gabrielle Dillon	Drake Univ.	Kimberly Huey, Drake Univ.
Charles T. Ganger	Univ. of Iowa	Darren P. Casey, Univ. of Iowa
Taylor Glausen	Le Moyne College	Lara R. DeRuisseau, Le Moyne College
Slavina B. Goleva	Univ. of Kentucky	Jeffrey L. Osborn, Univ. of Kentucky
Shreya N. Kashyap	Tulane Univ.	Sarah Lindsey, Tulane Univ.
Nabihah Khan	Benedictine Univ.	Jayashree Sarathy, Benedictine Univ.
Genevieve Kocoloski	Univ. of Dayton	Anne R Crecelius, Univ. of Dayton
Angela Le	Le Moyne College	Lara R. DeRuisseau, Le Moyne College
Debby Lee	Univ. of California, Merced	Catherine Uyehara, Tripler Army Med. Ctr.
Brittney A. McCormick	Univ. of Arizona-Phoenix	Taben Mary Hale, Univ. of Arizona Coll. MedPhoenix
Edouard Niyonsaba	Univ. of Central Arkansas	Brent Hill, Univ. of Central Arkansas
Kashif Osmani	Univ. of Illinois at Chicago	Mrinalini Rao, Univ. of Illinois at Chicago
Mackenzie Powell	Univ. of Evansville	David Pollock, Univ. of Alabama at Birmingham
Shahana Prakash	Univ. of Cincinnati	Bryan Mackenzie, Univ. of Cincinnati Coll. Med.
Anthony Sainz	Univ. of Utah	Lisa Joss-Moore, Univ. of Utah
Utkarshna Sinha	Univ. of Toronto	Patricia Silveyra, Pennsylvania State Coll. Med.
Noah Smith	Messiah College	Jodie Haak, Messiah College
Phi Trac	Emory Univ.	My Nga Helms, Emory Univ.
Andrew Tucker	Pennsylvania State Univ.	Sean Stocker, Pennsylvania State Coll. Med.
Robert Vanderkamp	Michigan State Univ.	Brian Gulbransen, Michigan State Univ.
Amrit Vasdev	Mayo Clinic	Carlos Mantilla, Mayo Clinic
Maria Vicent Allende	Williams College	Steven Swoap, Williams College
Paige Wakefield	Univ. of Alberta	Craig Steinback, Univ. of Alberta
Travis Wakeham	Michigan Technological Univ.	John Durocher, Michigan Technological Univ.
Ryan Wang	Univ. of Manitoba	Michael Czubryt, Univ. of Manitoba

Awardees receive \$100, 2 years of APS undergraduate membership, and a certificate of recognition.

These students were then eligible for the Bruce Excellence in Undergraduate Research Awards. They were required to make oral presentations of their posters to a subcommittee of Education Committee members and other APS members. Of these, 14 Research Awardees were selected based on their knowledge of their research project. Each awardee received \$400 and a certificate of recognition. Again this year, funds were received and earmarked to award an additional \$250 to the top Research Awardee. This year, APS was pleased to receive support for the Bruce Awards again from APS Members John M. Horowitz, Barbara A. Horwitz, Ida J. Llewellyn-Smith, Thomas and Beth Pressley, and J. Michael Wyss. Awards were presented by President David Pollock during the special APS Undergraduate Poster Session. The awardees are listed in the table below.



2015 Bruce Outstanding Undergraduate Abstract Awardees



2015 Bruce Excellence in Undergraduate Research Awardees

Undergraduate Research Awardees	Institution	Laboratory of
Jenae Brown	Alma College	Esther E. Dupont-Versteegden, Univ. of Kentucky
Andrielle Cowl	Univ. of Minnesota	Thomas Olson, Mayo Clinic
Slavina B. Goleva	Univ. of Kentucky	Jeffrey L. Osborn, Univ. of Kentucky
Shreya N. Kashyap	Tulane Univ.	Sarah Lindsey, Tulane Univ.
Nabihah Khan	Benedictine Univ.	Jayashree Sarathy, Benedictine Univ.
Debby Lee	Univ. of California, Merced	Catherine Uyehara, Tripler Army Med. Ctr.
Brittney A. McCormick	Univ. of Arizona-Phoenix	Taben Mary Hale, Univ. of Arizona Coll. MedPhoenix
Kashif Osmani	Univ. of Illinois at Chicago	Mrinalini Rao, Univ. of Illinois at Chicago
Andrew Tucker	Pennsylvania State Univ.	Sean Stocker, Pennsylvania State Coll. Med.
Robert Vanderkamp	Michigan State Univ.	Brian Gulbransen, Michigan State Univ.
Amrit Vasdev	Mayo Clinic	Carlos Mantilla, Mayo Clinic
Paige Wakefield	Univ. of Alberta	Craig Steinback, Univ. of Alberta
Travis Wakeham	Michigan Technological Univ.	John Durocher, Michigan Technological Univ.
Ryan Wang	Univ. of Manitoba	Michael Czubryt, Univ. of Manitoba
Slavina B. Goleva	Univ. of Kentucky	Jeffrey L. Osborn, Univ. of Kentucky

APS congratulates all these students on the quality of their research and presentations.

The awards are named in honor of APS member David S. Bruce (1939-2000), who served as Chair of the APS Teaching Section and was a professor of physiology at Wheaton College from 1978 to 2000. Bruce was a dedicated physiology educator who had a particular interest in engaging undergraduate students in scientific research. Bruce not only encouraged and supported his students in participating in research, but he also regularly brought undergraduate students to the Experimental Biology meeting, often to present their research findings.

Undergraduate Research Highlighted at Special EB Session

EB 2015 provided the setting for the 12th annual APS Undergraduate Poster Session. This special session highlights the contributions of undergraduate students to physiology research. Students present their poster at both their regularly scheduled poster session and the special Undergraduate Poster Session hosted by APS. This year, it was held again on Sunday afternoon and culminated with the presentation of the David S. Bruce Excellence in Undergraduate Research Awards and the awards for the third annual APS Video Contest: APS Presents: . . . Phantastic Physiology Voyage: "Function Follows Form."

Of the 217 undergraduate first authors invited to present at the APS Undergraduate Poster Session, 113 (52%) accepted the invitation, and took advantage of



Undergraduates discuss their research with APS members



Undergraduates discuss their research with APS members

the opportunity to display their poster and present it to interested scientists and guests. In addition, APS was joined for a fourth year by undergraduate students from the American Association of Anatomists (AAA). A total of 11 anatomy undergraduate presenters were there as well to participate in the session along with AAA society members. Approximately 200 APS and AAA members and guests were in attendance at the session, with many comments heard as to the high quality of research being presented by the students. The students and their research were highlighted again this year in a special printed program distributed during the session (available at *the-aps.org/ugposter*).

This session not only provided all these undergraduate students with an opportunity to highlight their research but also to meet faculty from many graduate schools and medical schools to discuss their future plans. This is the ninth year that graduate departments were invited to sponsor the session and display promotional materials for their departments to those undergraduates considering graduate or professional school. The departments and students arrived 30 minutes before the session to allow the students to spend time with the departments without having to leave their posters. The following 16 schools or programs participated:

- University of Alabama at Birmingham, Graduate and Biomedical Science (PhD) and Medical Scientist (MD/ PhD) Training Programs and Department of Cell, Developmental & Integrative Biology
- University of California, Davis, Molecular, Cellular, and Integrative Physiology Graduate Program
- Georgia Institute of Technology, School of Applied Physiology, College of Sciences
- Georgia Regents University, The Graduate School
- Kent State University & Northeast Ohio Medical University, School of Biomedical Sciences
- Louisiana State University Health Sciences Center at New Orleans, Department of Physiology
- Mayo Graduate School, Department of Biomedical Engineering & Physiology
- Medical College of Wisconsin, Department of Physiology
- Meharry Medical College, Physiology Program

- University of Michigan, Department of Molecular & Integrative Physiology
- Michigan State University, Department of Physiology
- University of Minnesota, Graduate Program in Integrative Biology & Physiology
- University of Missouri, Department of Biomedical Sciences
- Saint Louis University School of Medicine, Graduate Programs in the Biomedical Sciences
- Texas A&M Health Science Center, Medical Science Program
- Wayne State University, Department of Physiology

These departments received a list of undergraduate presenters who indicated they were interested in being contacted about attending graduate school.

APS looks forward to hosting APS Undergraduate Poster Sessions at future Experimental Biology meetings and encourages undergraduate students doing research in physiology to submit abstracts to EB, apply for the David Bruce award, and attend the poster session in 2016. Departments that are interested in sponsoring the 2016 Undergraduate Poster Session and displaying materials for their departments are encouraged to contact the APS Education Office (*education@the-aps.org*). ●



Departments and programs discuss their graduate offerings with undergraduate students



FREE Access for APS Members to Comprehensive Physiology through December 31, 2015

Comprehensive Physiology is the most authoritative and comprehensive collection of physiology information that has ever been assembled. Its starting point is more than 30,000 pages, 34 volumes of content from the American Physiological Society's renowned *Handbook of Physiology* series, which is presented now for the first time in a new, dynamic online format.

Comprehensive Physiology covers all areas of current research and practice, has a world-renowned editorial team, and is fully citable. <u>APS members receive FREE access through December 2015.</u>

www.comprehensivephysiology.com

San Jose State University Undergraduates Win Fifth Video Contest

For the second year in a row, San Jose State University students won the First Place Award for the APS Presents . .. Phantastic Physiology Voyage 2014: "Function Follows Form" Video Contest. This year's winning entry was by Nancy Phu, Sherwin Abtahi, Phi Nguyen, and Kathy Huynh entitled "How to Hold Your Breath Longer Underwater Tutorial."

This group of students also won the Viewers' Choice Award for receiving the most hits on YouTube for their video among all the contest entries.

The video contest encourages undergraduate and graduate students to creatively connect with physiology and engages them with the broader public through a short video contest. These videos would creatively demonstrate and/or explore a specific physiological function in 5 minutes or less. Videos can be staged as a short play, commercial, news broadcast, talk show, music video, documentary, etc.

The APS Career Opportunities in Physiology Committee chaired by Kathy Ryan (from U.S. Army Institute of

Surgical Research) selected the award-winning video from the applicants. The winning video was chosen based on originality, creativity, and quality of the video; whether the video explained the scientific principle at issue clearly and accurately; whether the video made physiology more interesting and relevant; and overall impact.

Finalist videos were then advertised on the APS website and Facebook pages to encourage members and guests to review and vote for their favorite on YouTube. Voting was closed during the EB meeting, and the Viewers' Choice Award was given based on the total number of YouTube views.

The award-winning video team received \$750 and certificates of recognition. For the Viewers' Choice Award, the team received an additional \$250 and certificates of recognition.

Awards were presented during the Undergraduate Poster Session held during EB. ●



High School Students and Science Teachers Explore Physiology at EB

This year's 2015 APS Physiology Workshop for Teachers and Students had over 100 in attendance for the day-long event for area high school teachers and their students. The workshop was held on March 30 and also included representatives for ADInstruments, Education Committee members, APS members, and the 2014 Frontiers Research Teachers. Students' feedback commented on the tour guides being the best part of their experience. RK Rao, Education Committee member, was committee lead for the day and, according to students' comments, was one of the best parts of their experience as their lunchtime tour guide.

Students engaged in demos of lab equipment used in teaching and research laboratories with interactive demonstrations by APS members, K-12 Outreach Fellows, and representatives from ADInstruments. The keynote talk, "Deep Dives and Long Breath Holds: The Diving Physiology of Emperor Penguins and Marine Turtles," was given by APS member Cassondra Williams, Ecology and Evolutionary Biology, University of California, Irvine, CA. Her talk was followed by an interactive Career Panel that included Williams, Kristine Deleon, and Nick Aguirre, APS Travel Minority Fellows. The panel was moderated by 2014 Lead Mentor Instructor Robert Manriquez. Twenty APS members served as tour guides during lunchtime visits to the exhibit hall, where they took teachers and students through the exhibits and posters and shared a box lunch while discussing physiology careers.

The afternoon student session was led by Education Committee members Peter Mittwede and RK Rao, along with Frontiers Mentor Instructors Robert Manriquez and Monica Erwin. Students used the "Junkyard Digestion" activity on modeling the digestive system with common household items. The teachers and APS teacher fellows were led by mentor teacher Tonya Smith and APS members Barb Goodman and Carissa Crane in an exploration of the *Next Generation Science Standards Science and Engineering Practices*.

The students commented that one of the best parts of the event was meeting physiologists one-on-one during the

lunch hour tour to the exhibit hall and scientific posters. The APS Education Committee plans to continue the workshop program for high school students and teachers at EB in San Diego, CA. ●



Wes Cogan from ADInstruments interacts with Boston area high school students during the EB2015 Teacher Student Workshop



Students enjoyed participating with APS member Tom Pressley during the EB2015 Teacher student workshop



Cassondra Williams, Postdoctoral Researcher, Ecology and Evolutionary Biology, University of California Irvine, was this year's keynote speaker

APS Presents Awards to Outstanding High School Students at the Annual Intel International Science and Engineering Fair

For volunteer APS judges, the prestigious Intel International Science and Engineering Fair (ISEF), a program of Society & the Public, was an opportunity to meet some of the brightest young minds in the world. The Intel ISEF, held this year in Pittsburgh, Pennsylvania, on May 11-15, 2015, is the world's largest international pre-college science competition, where nearly 1,700 students presented their own independent research and competed for over \$4 million in scholarships and cash prizes.

Students were eligible to compete at the ISEF after winning a top prize from one of 422 affiliate fairs held in 75 countries, regions, and territories. For the 23rd year, the APS presented special awards for the most outstanding projects in the physiological

sciences in the form of cash prizes, certificates, t-shirts, and a one-year subscription to APS publications. This year's APS judging team included Lila LaGrange (University of the Incarnate Word), Carmen De Miguel (University of Alabama at Birmingham), Alan Sved (University of Pittsburgh), Bill Yates (University of Pittsburgh), and Anna Stanhewicz (Pennsylvania State University). The APS judging team evaluated 108 projects based on students' abstracts and selected 18 candidates to interview at their posters. After 2 days of judging, the following students were selected to receive APS Awards for excellence in physiological research:

- The first place APS award (\$1,500) was presented to Demetri Maxim from Gould Academy (Bethel, Maine) for his Cellular & Molecular Biology project titled "Directed Differentiation of Human Pluripotent Stem Cells into Functional Kidney Cells that Form Nephrons in Kidney Scaffolds."
- The second place APS award (\$1,000) was presented to Sanjana Rane from DuPont Manual High School (Louisville, Kentucky) for her Biochemistry project titled "The Role of Extracellular Nuclear Factor-Erythroid Derived Protein 2 (NF-E2) as a Danger Associated Molecular Pattern (DAMP) Released during Acrolein Induced Renal Fibrosis."



Intel International Science and Engineering Fair Awardees

- The third place APS award (\$500) was presented to Sumanth Chennareddy from DuPont Manual High School (Louisville, Kentucky) for his Biomedical & Health Sciences project titled "Characterization of Vascular Responses to Mechanically Induced Continuous Flow Patterns in Bovine Models."
- The APS Exceptional Science Award (\$500) was presented to Jake Carrion and Michael Carrion from Jericho Senior High School (Jericho, New York) for their Computational Biology and Bioinformatics team project titled "Identification of Differentially Expressed Genes in Pancreatic Regulatory T Cell Survival." ●

Lila P. LaGrange, University of the Incarnate World Carmen De Miguel, University of Alabama at Birmingham APS Education Committee

APS Connects with Anatomy and Physiology Educators at the 29th Annual HAPS Conference



APS President Patricia Molina, Louisiana State University Health Sciences Center, 2015 HAPS Conference Invited Speaker

In a continued collaboration with the Human Anatomy and Physiology Society (HAPS), APS was pleased to support the 29th Annual HAPS Conference held May 22-27, 2015 in San Antonio, TX. The mission of HAPS is to promote excellence in the teaching of anatomy and physiology by supporting anatomy and physiology educators. APS took part in this mission by sponsoring a guest speaker and exhibiting to 485 attendees.

This year's sponsored speaker was APS President Patricia Molina, Louisiana State University Health & Sciences Center. Molina spoke of her integrative physiological approach to studying the interaction of alcohol with HIV/AIDS in her talk, "Preclinical and Translational Studies Dissecting Chronic Alcohol Modulation of HIV Disease." A synopsis of Molina's talk will be published in the *HAPS-EDucator*, and resources related to her presentation may be found in the Life Science Teaching Resource Community (LifeSciTRC) at the following link: *http://bit.ly/HAPS15*.

During the meeting, APS also promoted its educational resources and Physiology Educator Community of Practice (PECOP) within the Life Science Teaching Resource Community (LifeSciTRC). LifeSciTRC Scholar Julie Dais (Okanagan College) and APS staff led a workshop on "Using the Life Science Teaching Resource Community (LifeSciTRC) to support Vision and Change and Next Generation Science Standards in Evidenced-Based Teaching." Additionally, APS staff member Miranda Byse gave a talk on APS educator resources and PECOP during the first annual HAPS Synapse speaker session. For more information about PECOP and how to join this free community, visit www.LifeSciTRC.org/PECOP.

The 30th Annual HAPS Conference will be held May 21-25, 2016 in Atlanta, GA. APS member Lacy Alexander (Pennsylvania State University) will serve as the APS-sponsored speaker. ●



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Science Policy

NIH Announces Plans to Address Rigor and Reproducibility in Research

On June 9, 2015, the NIH announced plans to revise grant application instructions and review criteria to enhance the reproducibility of research findings through "increased scientific rigor and transparency."

The revised instructions will require applicants to address four areas.

- Scientific premise of proposed research. NIH will expect applicants to describe the strengths and weaknesses of prior research being cited as crucial to support the application. Description of strengths and weaknesses might include attention to the rigor of experimental design and consideration of relevant biological variables in the cited work.
- **Rigorous experimental design.** NIH expects applicants to describe how they will achieve robust and unbiased results in the proposed methods and experimental design. Full transparency in reporting experimental details is also required.
- Consideration of relevant biological variables, including sex, in vertebrate animal and human studies. Research proposals will need to detail how relevant biological variables will be considered in experimental design, analysis, and interpretation. Justification will be required for research that does not propose to consider sex as a biological variable. Additional details on this topic were published in a second notice.
- Authentication of key biological and/or chemical resources. NIH will expect key resources, including cell lines, antibodies, specialty chemicals, and other biologics, to be regularly authenticated to ensure their identity and validity.

Description of scientific premise, experimental design, and consideration of biological variables will be included in the Research Strategy section of applications. Page limits remain unchanged. Reviewers will evaluate scientific premise as part of the significance criteria, and experimental design and consideration of variables as part of the approach criteria. All three of these areas will factor in to assessment of overall impact score. Authentication of resources will be included as a new attachment, which reviewers will comment on but not consider in scoring overall impact.

NIH is currently seeking approval for incorporation of these guidelines from the Office of Management and Budget. Revised application instructions are expected to be available in the fall of 2015 for application submission for the January 25, 2016 due date. Next year, grant reviewers will be trained to evaluate these new criteria.

Proposal of the new application and review criteria is one approach that the NIH is taking to address problems with reproducibility of research results. For a broad overview of the issue, including presentations from the Science Policy Committee's 2015 symposium on reproducibility, see *http://www.the-aps.org/Reproducibility.*

Links

1. Enhancing reproducibility through rigor and transparency. *http://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-103.html*.

2. Consideration of sex as a biological variable in NIHfunded research. *http://grants.nih.gov/grants/guide/noticefiles/NOT-OD-15-102.html*.

3. NIH has posted frequently asked questions and answers on their website. *http://grants.nih.gov/reproducibility/faqs.htm*.

Fish & Wildlife Service Designate Captive Chimpanzees as Endangered

On June 16, 2015, the Fish and Wildlife Service (F&WS) published a final rule in the *Federal Register* designating captive chimpanzees as "endangered" under the Endangered Species Act.

This step means that a F&WS permit will be required before conducting research with chimpanzees, adding further challenges to such work. However, according to the *Federal Register* notice, "It is not [the agency's] intent to prevent any biomedical research." Underscoring this point is the fact that, while an endangered listing usually takes effect after 30 days, the status change for captive chimpanzees will not take effect for 90 days. The reason given was to "allow persons who qualify for a permit to avoid unnecessary suspension of their activities, which include important ongoing medical and scientific research."

Since 1990, the F&WS has used a split listing, with captive chimpanzees designated as threatened and wild chimpanzees as endangered. In 2010, several animal protection and animal rights groups petitioned F&WS to add captive chimpanzees to the endangered list. The petitioners included the Humane Society of the U.S., Jane Goodall Institute, American Association of Zoological Parks and Aquariums, Wildlife Conservation Society, Pan African Sanctuary Alliance, Humane Society International, and New England Anti-Vivisection Society.

At a June 12, 2015 press conference, F&WS Director Daniel Ashe said that biomedical research with chimps may be allowed to continue if it is critical to understanding human disease. As reported in *Science*, Ashe went on to say that organizations conducting or sponsoring such research "would have to make a [monetary] contribution or support conservation of wild chimpanzees."

The F&WS decision was based on both a review of current threats to chimpanzee survival in the wild and a reconsideration of whether the language of the Endangered Species Act allowed the agency to classify wild and captive chimpanzees differently. In announcing the proposed rule 2 years earlier on June 12, 2013, F&WS said it had already "determined that the Act does not allow for captive-held animals to be assigned separate legal status from their wild counterparts on the basis of their captive state."

The comments APS submitted on the proposed rule did not dispute the agency's interpretation of the law. Rather, the APS focused on why it was important to allow biomedical research with chimpanzees to continue. The August 12, 2013 APS letter emphasized that biomedical research with captive chimpanzees is consistent with objectives of the Endangered Species Act and has the potential to enhance the conservation of the species through infectious disease research. "Given the many protections already in place for chimpanzees in biomedical research, the APS urges F&WS to expedite the permitting process to minimize its impact on the development and dissemination of treatments for serious diseases," the letter said.

In the wake of the final decision, APS Director of Science Policy Alice Ra'anan submitted a letter to the editor published June 19, 2015 in *The Washington Post*. The letter noted that, while the need to study chimpanzees has decreased, it remains necessary to develop safe and effective treatments for some conditions. Given that "[o]ther countries gave up their medical research because they knew the United States planned to continue," necessary research with chimpanzees should be allowed to proceed even though the captive population has been designated as endangered.

The final rule is expected to take effect September 14, 2015. ●

Meeting of the Minds: Send Your Stories

Originally published July 10, 2015 in *Science* 349: 148-149, 2015; doi:10.1126/science.349.6244.148-a. Published here with permission from *Science*.

The path from Gila monster venom to the diabetes medication Exenatide runs through an American Diabetes Association meeting in 1996. There, Department of Veterans Affairs researcher, endocrinologist, and Golden Goose Award winner Dr. John Eng presented results on how a compound in Gila monster venom affects insulin production, catching the attention of a small biotechnology company, Amylin Pharmaceuticals. After receiving U.S. Food and Drug Administration approval in 2005, the resulting drug Exenatide is now used by millions of people to manage Type 2 diabetes.

The story of Dr. Eng and Amylin is just one of manyspanning all science and technology disciplines–that exemplify the important role of conferences in advancing science, developing the next generation of scientific talent, and bringing new technologies and potential cures to the benefit of society.

In 2012, the White House Office of Management and Budget instituted new government-wide regulations (1) that substantially cut spending on conference participation and travel and require the senior leadership to review agency-wide conference costs that exceed \$100,000, with more stringent requirements for costs in excess of \$500,000. At current prices for travel and lodging, this would cover the cost of only a few hundred attendees, whereas the Departments of Defense and Energy each employ over 100,000 scientists and engineers either directly or as contractors. The U.S. Congress has further limited travel to international conferences to 50 employees per agency for most agencies. In response, federal agencies have developed costly tracking and approval systems, and approvals now often require more than a dozen signatures.

Under these new restrictive regulations, members of the scientific community employed by federal agencies have been subject to approval processes that have ballooned from weeks to as much as 9 months, and some scientists and engineers are now choosing not to request travel

at all. The Government Accountability Office (2) and White House Office of Science and Technology Policy (3) have shown that this has led to reductions in conference participation among these colleagues, to the detriment of science as a whole.

This is why we and our colleagues in the science and technology community recently wrote a letter to the U.S. Congress expressing our deep concerns about the stifling impacts of these policies on science and engineering, and encouraging them to act (4). The letter was signed by more than 100 organizations and institutions that collectively represent and support millions of scientists, engineers, and mathematicians.

We hear from policy-makers in Congress and regulators at federal agencies that current problems stem, in part, from a lack of understanding of why scientific and technical conferences are important parts of the work of each and every member of our community, not fancy junkets. So today, we and our colleagues are reaching out to ask for your help.

Tell us about a collaboration that started at a conference and led to an exciting new discovery, or how an interaction at a conference was critical to your career as a young scientist or engineer. Because current regulations affect federal employees and contractors most, we especially encourage stories that involve collaborations with colleagues at national labs or research institutes. Submit your experiences at *www.aaas.org/yourstory* (5).

James F. Albaugh^{1*}, Joseph R. Haywood², James A. Jefferies³, and Toyohiko Yatagai⁴

¹President, American Institute of Aeronautics and Astronautics, Reston, VA 20191, USA; ²President, Federation of American Societies for Experimental Biology, Bethesda, MD 20814, USA; ³President, IEEE-USA, Washington, DC 20036, USA; and ⁴President, SPIE, Bellingham, WA 98227-0010, USA; *Corresponding author. e-mail: communications@ aiaa.org

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References and Notes

1. Executive Office of the President, Office of Management and Budget M-12-12, "Promoting Efficient Spending to Support Agency Operations" (www.whitehouse.gov/sites/default/files/omb/memoranda /2012/m-12-12.pdf).

2. U.S. Government Accountability Office, "Defense science and technology: Further DOD and DOE actions needed to provide timely conference decisions and analyze risks from changes in participation," *GAO Highlights* (2015); *www.gao.gov/assets/670/668845.pdf*.

3. L. Rein, "How the federal travel crackdown hits scientists especially hard," Washington Post, 25 March 2015; www.washingtonpost.com/blogs/federal-eye/wp/2015/03/25/the-white-house-asked-federal-scientists-how-bad-its-crackdown-on-travel-is-the-answer-bad/.

4. Letter to Senate Appropriations Committee (*www. aaas.org/sites/default/files/SApprops%20S%26T%20 Conference%20Travel%20Letter.pdf*).

5. AAAS, publisher of *Science*, led the above-referenced letter to the U.S. Congress and is also hosting the story collection.

CALL FOR NOMINATIONS

For the Arthur C. Guyton Educator of the Year Award

The 2016 **Arthur C. Guyton Educator of the Year** Award supported by Elsevier (\$1,000 cash prize plus reimbursement of the advanced registration fee, a framed, inscribed certificate, up to \$750 in travel reimbursement to the Experimental Biology meeting and a complimentary ticket to the Section Dinner) recognizes a full-time faculty member of an accredited college or university and member of the APS who has independent evidence of: (1) excellence in classroom teaching over a number of years at the undergraduate, graduate, or professional levels; (2) commitment to the improvement of physiology teaching within the candidate's own institution; and (3) contributions to physiology education at the local community, national or international levels. The awardee is requested to write an essay on his/her philosophy of education for publication in *The Physiologist*.

The typical nominee will have shown excellence in teaching and have made significant contributions in student advisement, graduate education, and/or curriculum design and reform at their institution. The activities that distinguish a candidate in the rankings include outreach activities at the state, national, or international level; contributions to education through APS activities; peer-reviewed educational journal articles; and widely disseminated publications such as commercially produced textbooks, lab manuals, or software. Unsuccessful nominees may be reconsidered for the award during the subsequent year with notification to the nominee and the nominator and receipt of updated information. The award winner is announced at the APS Business Meeting during Experimental Biology.

Nominations Process: Each nominee must be nominated by a member of APS. All candidate materials must be uploaded by November 6, 2015. Michael W. Lee, Ph.D., Chair, Guyton Awards Selection Committee: Lee_Michael@austin.utexas.edu

Required Materials:

Curriculum Vitae Statement of teaching philosophy and achievements Summary of student evaluations Ed. related activities outside of classroom Up to 5 letters of support from colleagues (1 is required) Up to 5 letters of support from students. Nominator 1 APS membership ID#

9-1-11/ 4:30

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News from Distinguished Physiologists

Letter to Hiroko Nishimura

John H. Miller writes: "Thank you for the birthday message. It's hard to believe I'm 70. My main research now is focused on anticancer drugs that target microtubules. This is a bit of a long way from physiology, except maybe cell physiology. I find continuing my membership in the APS is very useful because I lecture on heart, lung, gut, and kidney physiology at Victoria University of Wellington, and I find the APS journal *Physiology* useful for keeping track of new thoughts and research directions in physiological research. I also have

never forgotten my interest in renal physiology and like to follow what is happening in the field and what the leaders are thinking and doing. I also have carried out research in neurophysiology, both in terms of drugs of abuse, such as ecstasy, and neurodegenerative diseases. I incorporate new information from APS journals in my undergraduate and graduate lectures, and am happy to be a member of the Society.

"Please thank the APS for keeping an eye on me."

Letter to Hiroko Nishimura

Kent L. Thornburg writes: "It was so kind of you to wish me well.

"I remain active as a full-time scientist. I continue to investigate my primary interests: transport mechanisms

in the placenta, embryonic and fetal heart development, and the early origins of adult-onset diseases. The APS has been important to me in many ways throughout my career." ●

Books Received

Research Regulatory Compliance Edited by Mark Suckow and Bill Yates New York: Academic, July 8, 2015, 344 p., \$99.95 (hardback) ISBN: 978-0124200586

Research Regulatory Compliance offers the latest information on regulations and compliance in the laboratory. With the increasing complexity of regulations and the need for institutional infrastructure to deal with compliance of animal use issues, as well as a requirement surrounding human subjects, this publication provides reputable guidance and information.

The book is extremely helpful as a resource for researchers, administrators, and technicians in the laboratory, and is also a great asset for faculty or new researchers coming in to the laboratory environment. It should help prepare users for the deluge of regulatory and compliance issues they will face while conducting their scientific programs.

The book is edited and authored by known leaders in the field of compliance and regulations, and contains extensive research on the topics. It represents the new standard for information in every laboratory.

Positions Available

Postdoctoral Fellowship: Combat casualty care researchers at the U.S. Army Institute of Surgical Research (USAISR) are seeking candidates for postdoctoral positions. Qualified candidates must be highly motivated, independent individuals with a PhD in physiology, bioengineering, cell biology, immunology, or a related field. U.S. citizenship required. Candidates must have exceptional laboratory and written communication skills and the ability to work both independently and cooperatively within a team. Ability to work with large and small animals, tissue culture, histology, and molecular biological techniques are essential. The successful candidate will be joining a research team focused on developing interventions aimed at hastening healing and improving function following skeletal muscle trauma. Emphasis is placed on transitioning products from pre-clinical to clinical testing in a collaborative environment involving researchers and clinicians. The USAISR is co-located with San Antonio Military Medical Center (SAMMC) in San Antonio, TX, which enables the research organization to have a unique, indepth understanding of combat injuries and civilian trauma and the clinical challenges faced by the physicians and surgeons who treat them. This creates a unique environment for translational research. To apply, applicants must submit their curriculum vitae, brief description of research interests and career goals, and e-mail contact information for three references to: thomas.j.waiters22.civ@maii.mii or Thomas J. Walters, PhD Extremity Trauma Research and Regenerative Medicine, 3698 Chambers Pass, BHT-1 JBSA Fort Sam Houston, Texas, 78234.

Postdoctoral Fellowship: Postdoctoral research fellowship immediately available on NIH-funded T32 training grant focused on providing multi-disciplinary multi-modality training in molecular and translational cardiovascular imaging for highly qualified fellows holding either a MD or/and a PhD in preparation for academic careers as independent investigators in the highly clinically relevant field of cardiovascular imaging. Postdoctoral fellowship training will be 2-3 years in duration. There are three primary research focuses in the postdoctoral training: 1) cardiovascular molecular imaging, 2) cardiovascular imaging technologies and analyses, and 3) translational cardiovascular imaging. Applicants will have full access to resources available through the Yale Translational Research Imaging Center, including small and large animal surgical suite, fluoroscopy suite, 3D ultrasound, 64-slice SPECT/ CT, micro-SPECT/CT, micro-CT, and optical imaging, along with other institutional resources, including PET/CT and MRI. Participation in ongoing NIH funded projects. Applications will be encouraged from clinical, engineering, and basic science departments, with particular attention to the recruitment of minority, disabled, and disadvantaged candidates. Candidates fellows must hold either a MD or/and a PhD. Candidates must be U.S. citizens or hold a green card. Please contact Albert Sinusas, MD, for more information: office, 203-785-5005; e-mail, *Albert.Sinusas@yale.edu*.

Assistant Professor: The Department of Biology at the University of Colorado Colorado Springs invites applications for a tenure-track assistant professor in integrative physiology to start in August of 2016. Applicants must have a PhD (postdoctoral experience preferred) and research agenda, with potential to obtain external funding and commitment to undergraduate teaching in the Biomedical Science option within the Biology major. Special consideration will be given to individuals with expertise in human neuromuscular, respiratory, or endocrine physiology. Teaching load (3-2) may include courses in human anatomy, physiology, pathophysiology, and metabolism. The University enrolls ~11,000 students, with ~750 undergraduate Biology majors. The Biology Department is dedicated to outstanding teaching and research at the undergraduate and Master's levels (www.uccs.edu/~biology). Additional information and online application are available at www.jobsatcu.com (posting #F02451). Applicants must submit 1) cover letter, 2) curriculum vitae, 3) teaching philosophy, 4) research plan, 5) three representative publications, 6) three letters of recommendation, 7) contact information for two additional professional references, and 8) unofficial transcripts for consideration. Preference will be given to those who submit these materials by October 15, 2015. Specific questions may be directed to the search committee at *biology@uccs*. edu. UCCS is dedicated to ensuring a safe and secure environment for our faculty, staff, students, and visitors. To achieve this goal, we conduct background investigations for prospective employees. The University of Colorado Colorado Springs fosters equity in employment by promoting diversity and assuring inclusiveness. We encourage applications from women, racial and ethnic minorities, persons with disabilities, and veterans. Alternative formats of this ad can be

provided upon request for individuals with disabilities by contacting the Office of Human Resources at (719) 255-3372.

Assistant/Associate Professors: The Burrell College of Osteopathic Medicine (BCOM) at New Mexico State University, one of the nation's newest and most innovative medical schools, located in beautiful Las Cruces, New Mexico, invites applications for multiple full-time, 12-month faculty positions in the Pre-Clinical Science Departments. BCOM's inaugural class will matriculate in August, 2016, and the College is seeking to identify and hire energetic, dedicated individuals with strong pedagogical versatility, a passion for teaching and mentoring in biomedical science disciplines, and a deep commitment to medical education. The Department of Physiology & Pathology seeks six (6) medical educator positions in the field of Physiology (3 positions) and Pathology (3 positions). The College's mission is to improve health education and healthcare in Southern New Mexico, and throughout the Southwestern U.S. by increasing the number of physicians trained in this region. Teaching is the primary focus of our faculty. The College plans to implement a spiral, systems-based curriculum that will integrate disciplines and will incorporate interactive methodologies and androgogical teaching philosophy. The College will encourage student learning in a humanistic environment and promote patient-centered, evidence-based medical care of the highest quality in a manner consistent with these core values. Successful candidates will function as a member of a collaborative teaching team to develop and deliver their instructional content within an integrated curriculum. Primary responsibilities will involve teaching medical students through the systemsbased courses of the first and second academic years, and will involve the development of collaboratively designed and highly integrated curricular elements. Additional teaching responsibilities may exist in the third and fourth years of the curriculum and will focus on the application of foundational scientific knowledge to clinical settings. Service to the College and the community will also be an essential function of the position, including committee membership, faculty development, student advising, interviewing prospective students, and community outreach. Additionally, evidence of scholarly activity with a record of publication and productivity are preferred and valued credentials in prospective candidates. Minimum

qualifications: terminal degree (PhD, DO, MD, or other) in the pre-clinical sciences; evidence of commitment to teaching foundational science in a medical school setting; evidence of, and the potential for growth in, teaching, scholarly activity, and service. Postdoctoral experience will strengthen the candidate's application. Preferred qualifications: additional training or experience in educational theory and/or evaluation; a substantial record of success as an educator, with experience in teaching foundational concepts, which are relevant to medical education; experience using innovative teaching methods, which might include teambased learning, "flipped classroom," problem-based learning, distance learning, interactive large group presentation, audience response systems, curriculum delivery systems (e.g. Blackboard), and proficiency in exam item writing (USMLE and/or COMLEX-style); experience with curricular and instructional design. Specific faculty responsibilities: approximately 70% time and effort devoted to delivering instruction in first and second year medical student curriculum and to providing service (committee responsibilities, student mentoring, interviewing, etc.) to the institution; work collaboratively with other faculty members to develop the integrated and interdisciplinary medical curriculum (first and second year); supervise, advise, and mentor medical students through the curriculum; serve as student advisors and mentor. Approximately 30% time and effort devoted to scholarly activity: participate in institutional and departmental educational research activities, including study design, data generation and analysis, and manuscript preparation and submission; develop an independent program of scholarly endeavor (basic, translational, clinical, or educational research; educational materials/programs development, etc.); provide supervision and evaluation of medical students and their scholarly projects; develop and prepare teaching materials (presentations, lectures, exam items, etc.); serve on departmental and institutional committees and task forces; demonstrate professionalism as defined by the BCOM declaration of faculty professionalism and responsibility. These full-time, 12-month positions have start dates ranging from January 1 to April 1, 2016. The positions are fully funded educational appointments reporting directly to the Chair of the Physiology and Pathology Department. BCOM offers a competitive salary and benefits package, commensurate with appointed faculty rank, qualifications, and experience. Application materials should include: a curriculum

vitae; a cover letter that includes detailed statements of teaching philosophy, scholarly (research) interests, and academic and professional experience; and the names and contact information of three referees from whom the applicant has requested letters of recommendation (to be forwarded directly to BCOM). Applications will be accepted until the positions are filled and should be submitted by electronic submission (e-mail) to the following address: Pre-Clinical Science Faculty Search attn.: David L. Osborne, PhD, Chair, Department of Physiology and Pathology, dosborne@bcomnm.org. The Burrell College of Osteopathic Medicine at New Mexico State University (BCOM) is a free-standing, privately funded, separately licensed, and independently operated entity and not part of New Mexico State University (NMSU). BCOM is an equal opportunity employer and values diversity in our faculty and staff as an important aspect of the educational process. BCOM encourages individuals with varied backgrounds and experience to apply.

Assistant/Associate/Full Professor: The Department of Physiology and Biophysics at Case Western Reserve University School of Medicine seeks a cardiac or renal physiologist at the rank of assistant, associate, or full professor. Applicants must have a PhD, MD, or equivalent degree and demonstrated academic excellence appropriate for career stage. Individuals seeking appointment at the assistant professor level must have at least 3 years of postdoctoral experience, a strong record of scholarly activity, and evidence of academic potential. Candidates for associate professor should have a considerable publication record, evidence of an international reputation, and a demonstrated ability to renew funding. For appointment at the professor level, substantial evidence of leadership in the applicant's academic field, outstanding productivity, and a sustained funding history are required. Rank will be commensurate with experience. The successful applicant will have demonstrated academic excellence appropriate for career stage and be expected to develop or continue a robust extramurally funded research program in the field of cardiac or renal physiology that compliments current programs within the department. Any area of cardiac and renal physiology will be considered; however, we particularly encourage applicants with expertise in the areas of cellular and molecular mechanisms of cardiac muscle contraction, genetics of cardiovascular disease, cardiac electrophysiology and arrhythmias, cardiac regeneration, heart failure, renal pH regulation, molecular mechanisms of renal calcium transport, role of the kidney in blood pressure regulation, and molecular and cellular mechanisms of ion transport. The Department of Physiology and Biophysics includes 18 primary and 32 secondary faculty members. The department has a strong record of cardiac and renal research, and faculty members are part of both the Case Western Reserve University Cardiovascular Research Institute and the Kidney Research Center. Interested candidates should send an electronic application that includes a cover letter, complete curriculum vitae including funding history, a one-page summary of research interests, and the names and contact information for four references to: CardioRenaiSearch@case.edu. In employment, as in education, Case Western Reserve University is committed to equal opportunity and diversity. Women, veterans, members of underrepresented minority groups, and individuals with disabilities are encouraged to apply. Case Western Reserve University provides reasonable accommodations to applicants with disabilities. Applicants requiring a reasonable accommodation for any part of the application and hiring process should contact the Office of Inclusion, Diversity and Equal Opportunity at 216-368-8877 to request a reasonable accommodation. Determinations as to granting reasonable accommodations for any applicant will be made on a case-by-case basis.

Full Professor: As one of Europe's leading research universities, Ludwig-Maximilians-Universität (LMU) in Munich is committed to the highest international standards of excellence in research and teaching. Building on its more than 500-year-long tradition, it offers a broad spectrum that covers all areas of knowledge within its 18 faculties, ranging from the humanities, law, economics, and social sciences, to medicine and the natural sciences. The Faculty of Veterinary Medicine, Department of Veterinary Sciences, invites applications for a Full Professorship (W3) of Physiology (Chair) commencing as soon as possible. The successful candidate is expected to represent the entire subject of physiology in research and teaching. Prerequisites for this position are a university and a doctoral degree with board certification, teaching skills at university level, excellent academic achievements, and a productive and promising research program. LMU Munich makes a point of providing newly appointed professors with various types of support, such as welcoming services and

assistance for dual career couples. LMU Munich is an equal opportunity employer. The University continues to be very successful in increasing the number of female faculty members and strongly encourages applications from female candidates. LMU Munich intends to enhance the diversity of its faculty members. Furthermore, disabled candidates with essentially equal qualifications will be given preference. Please submit (hard copy and electronic) a letter of intent, curriculum vitae (in german and english), diplomas, list of publications, documentation for qualification regarding teaching and grant acquisition to the Dean of the Faculty of Veterinary Medicine, Ludwig-Maximilians- Universität München, Veterinärstr. 13, 80539 München, Germany (e-mail: dekanat08@lmu.de) until September 30, 2015.

Leadership Position: The Schulich School of Medicine & Dentistry, at Western University, is inviting applications for the position of Chair in the Department of Medical Biophysics. As Canada's first Department of Biophysics, the Department has grown to become one of Canada's leading centers for medical biophysics research, with approximately 20 primary faculty members and over 70 actively collaborating cross appointed faculty leading internationally recognized research programs in medical imaging, microcirculation, computational modeling, biomechanics, and cancer. The department is the academic home to both undergraduate and graduate programs, including CAMPEP accreditation. It draws on a rich city-wide infrastructure incorporating two research institutes, three hospitals, and five university faculties. Research programs benefit from close collaborations between clinical and basic science faculty, with unique training programs in diverse fields. The successful candidate should have a demonstrated track record of leadership and research and teaching excellence with a proven reputation for effective interpersonal and administrative skills. The new Chair will facilitate collaboration and be expected to support the research, educational, and interdisciplinary initiatives of the Department. The successful candidate will build on the strength and forward momentum of the Department's graduate and undergraduate programs and promote the development of new initiatives in research, scholarship, and education. He or she must have a PhD, MD, DDS, or equivalent, and will receive a tenured academic appointment at the level of associate or full professor. Candidates with a research program complementing

existing research strengths are particularly encouraged to apply. The position of Chair is for a 5-year term, renewable. Western University is located in London, Ontario, with a metropolitan census of 530,000. As Canada's 11th largest city, London boasts an extensive educational and health care community. With full time enrollment of 32,000, Western graduates students from a range of academic and professional programs. Further information about the Schulich School of Medicine & Dentistry and Western University can be found at www.schulich.uwo.ca, and http://www.uwo.ca. Western's Recruitment & Retention Office is available to assist in the transition of successful applications and their families. Details about the Department of Medical Biophysics can be found at http://www.schulich.uwo.ca/ biophysics/. Interested candidates should submit a CV outlining their research, teaching, and administrative experience and interests, including future directions, together with the names and addresses of three referees to: Dr. Michael Strong, Dean, Schulich School of Medicine & Dentistry, Rm. 3701A, Clinical Skills Bldg., Western University, London, Ontario N6A 5C1; fax: (519) 850-2357; e-mail: selection.committee@schulich.uwo.ca. Please ensure that the form available at *http://www.uwo*. ca/facultyrelations/faculty/Application-FullTime-Faculty-Position-Form.pdf is completed and included in your application submission. Applications will be accepted until the position is filled. Review of applicants will begin after September 30, 2015. Positions are subject to budget approval. Applicants should have fluent written and oral communication skills in English. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. Western University is committed to employment equity and diversity in the workplace and welcomes applications from all qualified individuals, including women and men, members of visible minorities, aboriginal persons, persons with disabilities, and persons of any sexual orientation or gender identity.

Leadership Position: The Department of Kinesiology and Nutrition at the University of Illinois at Chicago (UIC) invites applications for the position of Department Head. The Department of Kinesiology and Nutrition is home to outstanding graduate and undergraduate programs with over 800 students, including a highly ranked PhD program (*http://www.ahs.uic.edu/kn/*). Research focus areas of the department include obesity and aging along with associated health complications, which are supported by numerous NIH and other federal, state, local, and foundation grants. The Department of Kinesiology and Nutrition is located in UIC's College of Applied Health Sciences and enjoys a long history of collaboration with the other seven UIC health science colleges and with the University of Illinois Hospital and Health Sciences System (http:// *hospital.uillinois.edu/*). UIC, in turn, is a major research university offering a variety of opportunities one expects to find in a world-class city. As one of the top 200 research-funded institutions in the world, UIC has a rich heritage of discovery and teaching. The Department Head provides academic leadership at all levels and has ultimate responsibility for establishing the departmental mission, goals, policies, and procedures, managing all aspects of departmental operations, including but not limited to budgeting, teaching, and personnel, and ensuring compliance with all applicable laws and regulations from accrediting agencies, the university, the UIC Campus, and the College of Applied Sciences. The Head is charged with fostering the research efforts of tenure- and clinical-track faculty who are working across campus and across institutions to build interdisciplinary collaborations at the leading edge of kinesiology and nutrition. In conjunction with these efforts, the Head is expected to demonstrate on-going scholarship not only by maintaining a vigorous externally funded research program and publishing scholarly works but also by participating at national/international meetings. Requirements: To be considered for this position, the candidate must have a PhD or equivalent degree in a health-related field and a strong national and international record of scholarly productivity and excellence at an academic institution. The candidate will have active involvement in the professions of kinesiology and nutrition, as well as a degree commensurate with expertise in kinesiology and/or nutrition. The selected candidate will also have the capacity for academic leadership that can communicate and achieve the vision of the Department of Kinesiology and Nutrition, the College of Applied Health Sciences, and UIC. Candidates must have a scholarly record sufficient for appointment as a full professor with tenure. Salary is negotiable and commensurate with qualifications and experience. The University of Illinois at Chicago offers an excellent benefit package. Applicants should submit curriculum vitae, a letter of application, and contact information for three references. Questions regarding the position can be

directed to the chair of the search committee, Professor Larry Pawola (*lpawola@uic.edu*). Applications should be submitted by August 26, 2015. All applicants must submit an online application through *jobs.uic.edu*. To apply, click on the following link: *https://jobs.uic.edu/jobboard/job-details?jobID=51317*. The University of Illinois at Chicago is an equal opportunity, affirmative action employer. Minorities, women, veterans, and individuals with disabilities are encouraged to apply. UIC phone: (312) 996-7337. ●

2014 Annual Report

Integrating the Life Sciences from Molecule to Organism



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Meetings & Congresses

2015

September 2-5

APS Conference: 14th International Conference on Endothelin: Physiology, Pathophysiology and Therapeutics, Savannah, GA. Information: internet: http://www.endothelins. com/Conferences/ET-14/. #Endothelin14

September 4-6

International Liver Cancer Association (ILCA) 9th Annual Conference, Paris, France. *Information:* internet: *http://www.ilca2015.org/*

September 9-12

APS Conference: Physiological Bioenergetics: From Bench to Bedside, Tampa, Florida. #Bioenergetics15

September 11-12

5th Annual Meeting of North American Artery (NAA) Society – Hemodynamics & Target Organ Damage: Mechanisms, Measurements, Management, Chicago, IL. Information: North American Artery, c/o Hansen Global Event Management, 68 Carlton Terrace, Stewart Manor, NY 11530; e-mail: info@naartery.org; internet: http://naartery. org/NAA2015

September 14-17

Endothelium-Dependent Hyperpolarizations in Health and Disease, Nyborg, Denmark. Information: internet: http://www.sdu.dk/en/Om_SDU/Institutter_centre/IMM_ Molekylaer_Medicin/Forskning/Forskningsenheder/ Kardiovaskulaer/EDH2015

September 28-October 1

Safety Pharmacology Society 15th Annual Meeting, Prague, Czech Republic. *Information: http://www.safetypharmacology. org/am2015/index.asp*

November 17-20

APS Conference: Cardiovascular, Renal and Metabolic Diseases: Physiology and Gender, Annapolis, Maryland. #SexGender15

2016

January 13-16

Genomics of Neurodegenerative Disorders, Cairo, Egypt. Information: internet: http://www.goldenhelix.org/index.php/ education/golden-helix-conferences/symposia/upcomingsymposium/222-2016-golden-helix-symposium-cairoegypt#welcome

April 2-6

2016 Experimental Biology, San Diego, CA.

July 21-25

12th International Congress of Cell Biology, Prague, Czech Republic. *Information:* internet: *http://www.cscb.cz/*

July 29-31

APS/TPS Joint Meeting: Physiology 2016, Dublin, Ireland. *#Physiology2016*

THE BENEFITS OF A CHARITABLE BEQUEST



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Meetings and Conferences

APS Conference: Cardiovascular, Renal and Metabolic Diseases: Physiology and Gender

November 17-20, 2015 • Annapolis, Maryland

Experimental Biology 2016 April 2-6, 2016 • San Diego, California

APS Teaching Workshop: The APS Institute on Teaching and Learning June 20-24, 2016 • Madison, Wisconsin

> **Physiology 2016** July 29-31, 2016 • Dublin, Ireland

APS Conference: Inflammation, Immunity and Cardiovascular Disease August 24-27, 2016 • Westminster, Colorado

APS Intersociety Meeting: The Integrative Biology of Exercise VII Fall 2016 • Location TBD



For more information on APS meetings, please visit: the-aps.org/Conferences



APS Members receive discounted registration to EB and APS Conferences!

The American Physiological Society usually holds one or more specialty conferences each year. In addition, APS joins with other societies to sponsor Intersociety Meetings as interest warrants. Please send an email to: <u>meetings@the-aps.org</u> for questions on APS Conferences.

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